

Economic History of South Africa

M. H. DE KOCK

R W Bethlehem

R. E. Notcutt.

Base 578

Cape Town.

R 60-

Dr R.W. Bethlehem
18 April 1935 - 1 May 1997

Donated by the Bethlehem Family
in memory of Ronnie and his
contribution to the economic
debate in South Africa

SELECTED SUBJECTS
IN THE
ECONOMIC HISTORY
OF
SOUTH AFRICA.

BOOKS BY THE SAME AUTHOR.

Finances of the Union of South Africa—Juta & Co. Ltd.,
Cape Town—pp. 238. Price 12s. 6d.

Government Ownership in South Africa—Juta & Co.
Ltd., Cape Town—pp. 187. Price 10s. 6d.

Ekonomie en Finansiewese van Suidafrika—Nasionale
Pers, Beperk, Kaapstad—124 bls. Prys 7s. 6d.

SELECTED SUBJECTS
IN THE
ECONOMIC HISTORY
OF
SOUTH AFRICA.

BY

M. H. DE KOCK,

B.A. (CAPE), M.A. AND PH.D. (HARVARD). SENIOR LECTURER IN
ECONOMICS, UNIVERSITY OF CAPE TOWN.



JUTA & CO., LTD.,
CAPE TOWN AND JOHANNESBURG.
1924.

PREFACE.

My main aim, in undertaking to write this treatise on the economic history of South Africa, was to provide a text-book for use in connection with the following courses at the University of Cape Town :—

(1) *Economic and Industrial Conditions of South Africa* (treated mainly historically).—This is one of the subjects for the Diploma of Social Science which has been instituted by the University of Cape Town, to take effect from 1925, and also comprises one-half of the new second course in Economics which likewise comes into force in 1925. In order to enable the student, within the limited time at his disposal, to acquire a firm grasp of the historical background of our present-day economic and industrial conditions, as well as an intelligent understanding of those conditions, it was found necessary to write a text-book which would give him an outline, in a readily digestible form, of all the essential features in the economic development of South Africa since the days of Van Riebeeck. With the assistance of such a text-book, it will be possible for the student to devote a large part of the year to a study of the prevailing economic and industrial conditions, on the basis of official reports and statistical publications.

(2) *Modern Economic History*.—This course, which may be taken by candidates for the B.A. and B.Sc. degrees and is compulsory in the case of candidates for the B.Com. degree, embraces the history of the economic development of Great Britain and South Africa, with occasional references to the Continent of Europe and the United States of America.

Although my principal aim was to provide a suitable text-book for the use of certain classes in the University of Cape Town, due attention has also been given to the fact that there is a demand for a systematic treatment of the same subject from other universities and colleges in South Africa as well as Great Britain, Canada, Australia, United States of America, etc. In view, however, of the limited demand for such a book from purely academic circles, the needs of government officials, politicians, teachers of

history and others interested in South African history or economics have also been taken into consideration. Accordingly the method and style adopted are intended to comply with and reconcile the requirements of the various university classes in which the book may be used, as well as of the interested members of the general public.

In general, however, the essentials of a text-book have been constantly kept in mind. The causes and effects of the principal economic events and the predominating tendencies in the economic development of South Africa have been analysed systematically and methodically, and sometimes even in comparative detail. Repetition of the outstanding features has been resorted to on many occasions in order to drive them home to the reader and to assist him in ascertaining the relation between the various economic forces at work. It has been considered highly necessary for the sake of clearness and completeness, and has consequently been used to a great extent.

On account of the lack of specialised works on the great number and variety of subjects in the economic history of South Africa, I experienced considerable difficulty in connection with my task of presenting an analytical and synthetical survey of the history of the economic development of the territories now comprising the Union of South Africa. The preliminary results of my research work which are embodied in this treatise, will be revised and supplemented from time to time as progress is made, in consequence of further research undertaken by myself or my students or others whose findings and conclusions are placed at my disposal. After five years from date I hope to bring out a revised and improved edition, and with this end in view I welcome friendly criticisms and suggestions for improvement from all who feel that they can contribute in some or other way to the advancement of our knowledge of South African economic history.

In accordance with custom I am taking advantage of this opportunity to acknowledge my indebtedness and gratitude to all who have rendered any assistance to me, more particularly the following :

- (1) Those who read selected portions of the manuscript and offered suggestions for improvement, such as Professors E. A. Walker, R. Leslie, J. F. W. Grosskopf, J. E. Holloway and A. Plant, Drs. A. J. Bruwer and A. L. Geyer, and Messrs. A. C. G. Lloyd, Graham Botha, Samuel Evans, W. J. Laite, J. Sommerville, W. J. Lamont, etc. :
- (2) those who assisted in collecting material and special information from various sources, typing several copies

of the original manuscript, reading proofs, preparing the index, etc., viz. : Mr. N. Schaffer, B.A., Mr. W. H. Morris, M.A., Miss S. de Jongh, Miss Pulcher Odendaal, and my sister Maude ;

- (3) the Research Grant Board from whom I received a grant of £20 in aid of research for the purposes of this book ; and
- (4) Mr. T. H. M. Duncan, of the firm of Juta & Co., Ltd., whose co-operation in connection with the publication of this book is highly appreciated.

M. H. DE KOCK.

University of Cape Town,
August, 1924.

TABLE OF CONTENTS

INTRODUCTION.

DISCOVERY AND OCCUPATION OF THE CAPE.

PART 1.

THE CAPE UNDER THE ADMINISTRATION OF THE DUTCH EAST INDIA COMPANY (1652-1795).

	PAGE
Chapter 1: Chronological Survey of Social and Economic Conditions	9
Chapter 2: Influence of Economic Factors on the Process of Settlement and the Progress of Colonisation	25
Chapter 3: Development of Agricultural and Pastoral Resources	44
Chapter 4: Internal Trade and Commercial Relations with the Netherlands and the East Indies ..	57
Chapter 5: Currency, Banking, Finance, and Taxation ..	70

PART 2.

ECONOMIC DEVELOPMENT OF SOUTH AFRICA SINCE THE FIRST BRITISH OCCUPATION.

Chapter 1: Chronological Survey of Social, Political and Economic Conditions (1795-1870)	85
Chapter 2: Chronological Survey of Social, Political and Economic Conditions (1870-1923)	108
Chapter 3: Growth and Distribution of Population ..	134
Chapter 4: Land Tenure and Public Land Policy	150
Chapter 5: Agricultural and Pastoral Industry	172
Chapter 6: Agricultural and Pastoral Industry—(Continued)	211
Chapter 7: Mining Industry	238
Chapter 8: Mining Industry—(Continued)	257
Chapter 9: Other Extractive Industries	268
Chapter 10: Manufacturing Industry	282
Chapter 11: Tariff Legislation	300
Chapter 12: Foreign Trade	321
Chapter 13: Transportation and Communication	337
Chapter 14: Currency and Banking	356
Chapter 15: Public Finance	386
Chapter 16: Taxation	410
Chapter 17: Labour Problems and Labour Legislation ..	434
Chapter 18: Evolution of the Poor-White Problem and Poor Relief	454

SELECTED SUBJECTS

in the

ECONOMIC HISTORY OF SOUTH AFRICA.

INTRODUCTION.

Discovery and Occupation of the Cape.

Events leading up to the Discovery of South Africa.—The discovery of South Africa toward the end of the 15th century was a result of the attempt to discover an ocean route between Europe and India, which was in turn largely prompted by important economic motives.

In the first place, the Mohammedans had come to be the main commercial intermediaries between the West and the East. The Turks had obtained control of the ancient overland routes from India to the Mediterranean Coast, via the Caspian Sea and the Tigris or Euphrates, and had somewhat checked the customary flow of commerce by imposing heavy transit dues on goods passing through their territory. There was indeed an alternative land and water route from India to Venice via Aden, the Red Sea, Suez and Alexandria, but the cost of transportation over this route was excessive, and, moreover, there was every likelihood of the Turks gaining control of Egypt as well and accordingly of the commerce carried on through Alexandria.

Prince Henry of Portugal (the Navigator) fully realised that, as long as the trade of Europe with the East remained in the hands of the Mohammedans, the merchants of Europe were undoing the work of her soldiers. The Turks were securely seated at Constantinople and threatened to advance into the heart of Europe; and it was the profits of a lucrative trade which supplied the treasure by which this formidable military power was supported. He also realised that, if the Portuguese discovered a sea-route to the East, the stream of commerce would be diverted to Lisbon, which would supplant Venice as the emporium of Europe and derive great wealth. Having grasped the central fact of the situation, Prince Henry determined, in spite of failures and discouragements, to send out a succession of navigators to explore the western coast of Africa and find an ocean pathway to the East. He died, however, without seeing the fruition of his plans, but the work of exploration was continued.

Secondly, the cost of transportation over the alternate land and water routes which were utilised at the time by the merchants trading between India and Western Europe, in order to avoid the interference of the Turk, was enormous and incompatible with the original price of the merchandise in the East. The silk and cotton fabrics, precious stones, dyes and perfumes, drugs, gums and spices of India and the islands in the Indian Ocean were conveyed in ships to Aden, where they were transhipped to smaller vessels going up the Red Sea and the Gulf of Suez. From Suez they were taken by camels to Cairo, then down the river Nile in boats to Alexandria, and from there the cargo was shipped to Venice, whose merchants distributed it over Europe.

Under such unfavourable conditions of trade the cost of transportation was unduly large in comparison with the original cost of the article. The cost of Indian merchandise delivered in Venice was many times more than the original price. The following is a very interesting description of the various elements forming component parts of the cost of such articles, such as "the cost of an article purchased from its original producer, plus the profit of the first collector, plus the charges for storage and shipping, plus the freight across the Indian Ocean to Aden, plus the cost of transhipment to smaller vessels there, plus the freight up the Red Sea and the Gulf of Suez, plus the cost of landing, plus the land carriage on camels, plus the government dues, plus the merchant's profit at Cairo, plus the charge for conveyance down the river in boats, plus the merchant's profit in Alexandria, plus the cost of transportation to Venice."

It was, therefore, of the utmost economic significance to find a complete sea-route between India and Europe, so that the products and gems of the East could be brought to Europe without a break in the course of transportation from the place of their origin to that of their destination, where they were to be distributed for use.

Under these circumstances the opening of a sea-route to India with the consequent reduction in the cost of transportation and the wresting from the Mohammedans of the commerce that produced enormous wealth and power, was an event "of the utmost importance to every nation of Central and Western Europe, and it was one of the smallest States in Christendom that performed this great service to mankind."

Discovery of the Cape by Bartholomew Diaz, in 1486, and of a sea-route to the East by Vasco da Gama in 1497-8.—On each successive voyage the Portuguese sailed further and further southwards along the west coast of Africa, until Bartholomew Diaz rounded

her southernmost cape in 1486. He continued the voyage eastward as far as the mouth of the Fish River and returned to Portugal with the important information that the southernmost promontory of Africa had been rounded. The sea-passage to India had thus come within the bounds of probability.

In 1497 Vasco da Gama started from Portugal on his memorable voyage to India. He rounded the southernmost corner of the African continent and proceeded along the east coast of Africa as far as the Quilimane River, from where he struck out into the Indian Ocean to the north-east, arriving at Calicut in India early in 1498. The Portuguese established a series of settlements in India from which an enormous revenue was derived. To the Portuguese, therefore, belongs the credit of having brought about direct maritime communication between the western nations of Europe and the East—one of the most important events in the history of the world.

The Portuguese held their own in the East during the greater part of the 16th century, using the island of St. Helena as a half-way station. They shunned the Cape after 1510 in view of the fact that in that year many Portuguese nobles, soldiers and sailors, including Francisco d'Almeida, who had put into Table Bay to take in fresh water supplies, had been killed in an engagement with the Hottentots.

A large portion of the merchandise brought from India to Lisbon by Portuguese vessels was there bought up by Dutch merchants and resold to other nations at a large profit, as the Portuguese themselves were not allowed to export Indian products. In 1580 Philip II. of Spain added Portugal to his dominions, but in spite of the war with Spain Dutch merchants continued to trade with Portugal. In 1598, however, Spanish and Portuguese ports were declared closed to the Netherlands Republic, but before this time the true merchant-spirit had induced the Dutch to seek their goods at first hand.

Four vessels had left Texel for India in April, 1595, on a trading expedition. After their return to Europe from India several companies were formed in different towns of the Netherlands, with the object of trading with the East and wresting from the Portuguese that wealth which they were then too feeble to guard.

Formation of the Dutch East India Company.—The fleets sent out by the different companies which had been formed in the chief towns of the Netherlands gained surprising successes over the Portuguese in India, but as they did not operate together, no permanent conquests could be made. For this reason, as well as to prevent rivalry and to conduct the Indian trade in the manner

that was most beneficial to the people of the whole country, the States-General resolved to unite all the small trading associations in one great company with many privileges and large powers. In this way the Dutch East India Company came into existence in March, 1602—an organisation which was inseparably associated with South African history for 150 years. It was essentially a trading company, whose main object was to secure large profits for those who had invested their money in it. Supreme control was vested in the hands of seventeen directors, known as the Assembly of Seventeen.

Right from the start the Company showed signs of great activity. It attempted to get a firm hold on the island of Ceylon ; it established trading-stores on West Java ; its ships navigated the entire Indian Archipelago as far as Siam and China. The Company soon wrested from the Portuguese and Spanish their choicest possessions in the East, and in addition to its conquests it acquired other valuable territory from native owners. All the Indian settlements of the Company were placed under the control of a Governor-General and Council.

In the English the Dutch East India Company found new and formidable rivals. An English East India Company had been organised as early as 1600. Its first settlement had been at Macassar, from where it had attempted to acquire a firm hold on the Indian Archipelago.

However, the Dutch East India Company remained in triumphant possession of the Archipelago in spite of the efforts of the Portuguese, Spanish and English to dislodge it, and succeeded in keeping other nations from these waters.

The island of St. Helena was very useful to the Portuguese, English and Dutch vessels trading with the East. Fresh water supplies were taken in there, and fruit and game obtained. The Dutch East India Company took possession of this island in 1645, but through the wantonness of sailors trees were destroyed, and dogs, let loose upon the island and returning to a savage state, preyed upon the game. The Dutch began to look around for another provision station about 1650, and their attention was directed to the Cape by economic as well as geographical considerations.

The Cape as Provision Station.—In 1614 the English East India Company had initiated the practice of sending a provision ship to Table Bay to meet the fleet on the return voyage, with a view to supplying the most important needs of the crews. And in 1616 the Assembly of Seventeen had issued orders that all outward-bound vessels of the Company should touch at the Cape in order

to take in fresh water and to obtain fuel and cattle, if possible, from the natives. Sometimes the Hottentots had been unwilling to barter their cattle, and in that case the sailors had taken by force what they could not obtain by fair means.

Furthermore, the Cape had served as a rendezvous for the ships of a fleet that had been dispersed by storms, and as a sort of post office. Conspicuous boulders on the shores of Table Bay had been used by the captains of vessels trading to and from the East as the repository of letters intended for collection and conveyance to their destinations by vessels proceeding in the opposite direction.

The events which finally led to the foundation of a provision station at the Cape by the Dutch East India Company were :

- (1) the need for another victualling station to take the place of St. Helena, which had been rendered unsuitable by the wanton destruction of trees, plants and game by the crews of ships calling at the island ;
- (2) the need for an adequate and reliable supply of fresh meat and vegetables to minimise the hardships and privation on board ship and to reduce the death rate resulting from scurvy, a sickness which frequently broke out amongst the sailors from a lack of fresh food and water ;
- (3) the suitability of the Cape as a half-way station and a place of shelter in view of its geographical location and the nature of the prevailing winds and currents ;
- (4) the wreck of a Dutch vessel, the " Haarlem," in Table Bay in 1648, as a result of which the shipwrecked sailors were obliged to spend five months at the Cape before they were taken back to the Netherlands by a fleet returning from India, and thus had an excellent opportunity of ascertaining the possibilities of the Cape.

These sailors had saved some seeds from the wreck and planted a garden, which had yielded good results in view of favourable weather and other conditions. Moreover, they had obtained sufficient cattle from the Hottentots and an abundance of fish and game.

On their return to the Netherlands, two of the shipwrecked crew, Jansz and Proot, drew up a memorandum in which they set forth at length the advantages to be derived by the Dutch East India Company from the occupation of Table Valley as a provision station. This memorandum was submitted to the Assembly of Seventeen for consideration, and after a good deal of deliberation the directors decided to carry out the proposal. The command of the expedition was offered to Proot, but he declined ;

and the matter was then referred, for approval, to Jan van Riebeeck, a surgeon in the service of the Company, who was acquainted with the possibilities of the Cape as he had landed there on one or two occasions on his way to or from the East. Van Riebeeck approved of the scheme and offered his services, whereupon he was appointed Commander of the expedition to the Cape.

Memorandum of Jansz and Proot.—In view of the fact that the memorandum of Jansz and Proot was of great importance in connection with the establishment of the “supply store” at the Cape, and that the instructions issued by the Company to Van Riebeeck were largely based thereon, it will be worth while to examine their proposals and arguments in detail, such being to a great extent founded on economic considerations.

The primary purpose of the memorandum was to indicate that a victualling station in Table Valley would not only be highly serviceable and necessary for the convenience and preservation of the Company’s ships and men, but also that it could be operated at a profit. Under the protection of a garrison of 60 or 70 soldiers and sailors and with the assistance of experienced gardeners, it would be possible to maintain a fort and a garden adequate to the requirements of the crews of the Company’s passing vessels. All kinds of vegetables, such as pumpkins, cabbages, carrots, radishes, turnips and onions, and all kinds of fruit, such as oranges, apples, pears, plums, cherries, gooseberries and currants could be grown there.

Moreover, cattle and sheep could be procured from the natives for a small amount; butter, cheese and milk could be obtained from the cattle; and pigs could be successfully reared and fattened on cabbages, carrots and turnips. As a result of the fresh meat, vegetables and fruit, many of the sick sailors would be restored to health, and the voyage would be one of greater comfort. In addition, water could be carried along in wooden pipes or drawn from a jetty with half the number of men and half the trouble formerly necessary.

The memorandum laid stress on the fact that, up to that time, St. Helena had been a very convenient place of call for the return ships, but that in consequence of the negligence of the skippers and the boats’ crews (who were more inclined to ruin everything with which they came in contact than to plant or leave anything for their posterity), it had been so damaged that neither pigs nor goats would be available in the future; and that, as it would be very difficult for the sailors to endure the entire voyage between India and the Netherlands without intermediate refreshment, and as the Company’s ships would be liable to great peril from severe

sickness, the Cape would be most convenient as a place for refreshment and recuperation. The Company suffered considerable loss and expense owing to the large number of sick sailors in the hospital at Batavia, remaining there often for months without doing any work and nevertheless drawing pay, the sickness being caused by salt meat and an inadequate supply of fresh water. The station at the Cape would provide the ships with cattle, sheep, greens, and an abundance of water. The cook would be able to provide the proper food which would maintain the crew in a strong and healthy condition and always fit for service, and as a result of this the Company would have no useless expense and loss.

Moreover, they emphasised the fact that the Company would save a substantial amount in connection with the wages of the crews, as they would require less time to refresh themselves and take in supplies and water at the Cape than at St. Helena, and that the Company would benefit by the earlier arrival of the valuable return fleets.

Finally, they maintained that the fort and garden would tend not only to the advantage and profit of the Company, but also to the salvation of many lives, the spreading of His Holy Gospel among the natives and the furtherance of the Reformed Christian Religion.

Expedition under Van Riebeeck.—Having resolved to undertake the expedition, the Assembly of Seventeen caused three ships to be fitted out for the Cape, known as the “Drommedaris,” the “Reyger” and the “Goede Hoop”; and Jan van Riebeeck was placed in supreme command. The fleet departed from Amsterdam in December, 1651, and on April 5, 1652, after a voyage of nearly 3½ months’ duration, Table Mountain was sighted. On April 6 the fleet anchored safely in Table Bay, and on the following day Van Riebeeck set foot on the land where he was to accomplish such magnificent pioneer work.

Van Riebeeck was not granted complete freedom of action, but he had to carry out the written instructions of the Assembly of Seventeen. He was instructed to erect a fort with accommodation for a garrison of 70 men; to construct a wooden building for the accommodation of invalided soldiers and sailors; to make a garden which was to yield an adequate supply of vegetables not only for the inhabitants of the station but also for the crews of the Company’s ships calling there; and to treat the natives kindly.

The scope of operations was exceedingly limited. The Company did not, in the first instance at any rate, aim at colonisation, but merely attempted to provide for a half-way refreshment station on the route between India and the Netherlands. The underlying

factors were mainly economic. The object of the Company was entirely practical and excluded any motives of political ambition or religious enthusiasm—factors which have frequently determined colonisation schemes.

The expedition to the Cape was composed exclusively of persons in the civil or military employment of the Company, who, with a few female relatives, numbered slightly more than one hundred altogether. There were several craftsmen and other labourers who were essential for the success of the new establishment.

PART 1.

THE CAPE UNDER THE ADMINISTRATION OF THE DUTCH EAST INDIA COMPANY (1652-1795).

CHAPTER 1.

CHRONOLOGICAL SURVEY OF SOCIAL AND ECONOMIC CONDITIONS.

Initial Difficulties.—Van Riebeeck's term of office at the Cape (1652-62) was one continual fight against difficulties of every description.

First there was a long-continued drought, as a result of which grass and herbs had almost entirely disappeared. Moreover, the pastoral Hottentot clans were encamped at a distance, and consequently cattle and sheep were not immediately obtainable. When the winter rains finally set in, nearly every one fell ill and many deaths occurred from dysentery or scurvy. However, there was now an abundance of wild herbs and nutritious plants which counteracted the scurvy. Also gardens were laid out and seeds planted, and within a relatively short time such vegetables as radishes, lettuce and cress were available. Though fresh meat was still lacking, the settlers could subsist on fish which was plentiful in the bay, and on penguins and their eggs which were found on Robben Island.

Van Riebeeck had set to work immediately to carry out the instructions of the directors of the Company and to provide for the safety of his men, materials and provisions. The throwing up of ramparts for a fort and the digging of a moat was a long and vexatious task. More than a year was devoted to the entire work of construction. In the meantime several wooden dwellings were erected within the fort to serve as dwelling-houses, barracks, and storehouses, and within four months persons and goods were placed under shelter and security. When this was completed, a hospital was built, where the sick soldiers and sailors might be received, treated and cared for until they completely recovered.

Van Riebeeck was soon able to supply the passing ships of the Company with vegetables and a small quantity of grain. The vegetable gardens responded favourably to the laborious efforts of the gardeners, especially in the case of cabbages, turnips and carrots, although crops which attained any considerable height

above the ground, such as wheat and peas, were severely damaged by the strong south-east winds. But he could not provide a steady supply of fresh meat. In October, 1652, a pastoral clan had arrived on the scene with herds of horned cattle and flocks of sheep, and with the aid of copper-plates, brass wire, and tobacco, Van Riebeeck had been able to establish a barter trade. But the Hottentots were not always disposed to barter their cattle and sheep for the copper wire or tobacco which constituted the usual medium of exchange. For weeks or months at a time they would pasture their flocks and herds within sight of the fort, but refused to dispose of any. In this way there frequently occurred a scarcity of fresh meat, and it was subsequently found necessary to undertake the breeding of cattle and sheep in order to ensure a regular supply of meat.

Pastoral Hottentot Clans.—The aboriginal inhabitants of the country at the time were known by the name of Hottentots, amongst whom the tribal organisation prevailed. They were spread over a wide expanse of territory in hordes or clans, each having its distinctive name and its own chief. They lived a nomadic pastoral life, migrating with their herds and flocks wherever good grazing land was to be found. Their food consisted mainly of the meat of their cattle or game killed in hunting, milk, edible roots, and wild fruit. They were not acquainted with the methods and products of tillage or agriculture. Their clothing consisted of sheepskins, and their dwellings represented a framework of sticks, bent and lashed together, and covered with reed mats.

Utility of the Cape as Provision Station.—During the period from 1653 to 1661, 253 of the Company's ships entered Table Bay for the purpose of procuring provisions and disembarking the sick sailors for attendance at the hospital and recuperation in the wholesome sunshine of the Cape. The number of ships to be provided for at any one time varied from month to month. The months of greatest activity were generally February, March, and April, when, according to Van Riebeeck in one of his letters, as many as 14 or 15 ships were anchored in Table Bay for ten days or more. The Cape had to provide food and nourishment for about five or six thousand of the ships' crews every year, not only during the period of their anchorage in the bay, but also for the voyage from the Cape to Holland or to the East Indies.

The ships were provided with (1) water, (2) vegetables and fruit, such as cabbages, radishes, onions, cress, sorrel, beetroot, water-melons, etc., and (3) fresh meat, mainly mutton and beef. In one year (1658-9), of which statistics are available, the ships received 352 sheep and 148 oxen.

On the arrival of the ships the sick were immediately transferred to the hospital, where many were restored to sound health even before the ships set sail again. The number of deaths from scurvy and of sick cases on board ship was considerably reduced as a result of the fresh provisions.

To this extent the Cape had justified its conversion into a place of refreshment, victualling and convalescence. The next step in its development was its transition from a mere provision station to an agricultural and pastoral colony.

Beginnings of Colonisation.—The primary intention of the Company had been to establish a provision station at the Cape, a half-way house, for the purpose of supplying fresh provisions to the Company's passing ships, and with that end in view no more persons were to be settled at the Cape than were absolutely necessary for the production of the vegetables, fruit and wheat required. The meat was to be obtained by bartering cattle from the Hottentots. The Cape settlement was regarded merely as a means to an end, the most important factor being the trade with the East Indies. In accordance with the suggestions contained in the memorandum of Jansz and Proot, the Company made the Cape serve as an intermediate refreshment station, as a means whereby the expenditure of the Company in connection with its trading operations could be reduced and the profits increased. The Cape settlement was thus launched as a purely commercial enterprise and was regarded as such by the Company during the entire period of its administration.

Although the original intention of the Company had been to establish merely a small provision station at the Cape, where all the inhabitants would be in the civil or military service of the Company, an important modification was made five years after the foundation of the settlement, in 1657. The Assembly of Seventeen had conceived a plan of colonisation and of settling free burghers on the land in the vicinity of the fort, with a view to strengthening the garrison and reducing the Company's expenditure. The matter was referred to Jan van Riebeeck, who approved of the scheme, "recognising that it would contribute to the maintenance of the authority and defence of the Company, and that in course of time the land occupied or brought under cultivation by the colonists would be able to bear the imposition of such burdens as would recompense the Company for any outlay incurred."

In 1657 a beginning was made with the scheme of colonisation. Nine soldiers and sailors in the service of the Company at the Cape were granted their discharge and permitted to settle as free burghers on lands allotted to them along the banks of the Liesbeek, at Rondebosch. They were granted full ownership of small areas of

land, which they were to cultivate exclusively for the production of wheat, rye, barley, oats and rice, and they were exempted from taxation for a period of twelve years. The Company supplied these settlers with the agricultural implements, seeds and livestock needed to carry on their farming operations, and these were furnished by the Company on credit and at cost price. Their produce and cattle were to be sold only to the Company and according to a fixed tariff.

On the other hand, the colonists were to participate in the defence of the country and to maintain their arms and equipment in good condition at their own expense.

In this manner the Company had initiated the development of an agricultural and pastoral colony at the Cape, under the impression that it would be a more economical way of provisioning the homeward and outward-bound fleets, "that it would be less costly to make the colonists produce the necessary provisions than the servants of the Company." The Cape was still regarded merely as a means to an end, but it was thought that as an agricultural and pastoral colony it would become a better means to that end than as an ordinary provision station, which, however, did not prove to be the case financially. It remained largely a means to an end, a half-way house on the route between Europe and the East, until 1870, when the opening of the Suez Canal had diverted the ships trading exclusively with the East from the old to the new and shorter route, and the opening of the diamond mines at Kimberley had made the Cape an end in itself and attracted shipping for its own purposes.

The nine colonists who had commenced agricultural operations in 1657 on the banks of the Liesbeek were the first farmers, the forerunners of the "boer" population of South Africa. According to Dehérain, they were the initiators of a movement of expansion which was pursued for over 200 years, from Table Bay to the Zambesi River.

Territorial Rights.—The establishment of this small colony of farmers had brought to an issue the question of territorial rights. When the Hottentots, in the course of their periodic migration, returned to their old pastures along the Liesbeek, they found the white man ploughing the land where they had been accustomed to graze their cattle and dig out roots or bulbs for their winter food. They determined to obstruct the colonists and to "dishearten the intruders by taking away their cattle, and if that did not produce the effect, then to burn their houses and corn until they were forced to go away." The result was a war, in 1659, between the colonists and the garrison of the Company, on the one hand, and the

Hottentots on the other. The outcome was an agreement whereby the Salt River and the Liesbeek were recognised as the boundaries of the colony.

However, this did not prove to be a satisfactory arrangement to the Hottentots, in the long run. They were discontented in view of the fact that the white inhabitants had deprived them of the land which they had used for centuries. Fearing a repetition of such conflicts the Company ultimately decided, in 1672, to purchase a large tract of territory, including all the lands, pastures, forests, rivers and creeks from the Cape Peninsula to Saldanha Bay, from two of the Hottentot chiefs, who claimed to be hereditary sovereigns. The payment was made in brandy, tobacco, beads, and merchandise of the value of about £10.

This purchase settled the question of territorial rights.¹ As the colony expanded and the colonists moved into the interior, the Hottentots receded. In consequence of numerous feuds and quarrels amongst themselves, wars with other aboriginal races further inland, sickness and disease (small-pox), and occasional acts of violence committed by some of the colonists, the Hottentot clans were impoverished, disintegrated, and dispersed all over the colony as herdsmen to the colonists, or in small communities, or were merged into the other inland clans. They ceased to exist as an independent race within the boundary of the colony after the first quarter of the 18th century.

Growth of Population in 17th Century.—During Van Riebeeck's administration there were few accessions to the population of the Cape. The number of the servants of the Company (soldiers, sailors, carpenters, masons, gardeners, etc.) advanced from 99 in 1652 to 133 in 1656, then declined to 69 in 1659, and advanced again to 120 in 1662, according to the multiplicity and variety of the duties undertaken by Van Riebeeck. Some of these had their wives and children with them. In addition there were the free burghers settled on the land and the slaves who had been imported with a view to providing labour for the colonists, as well as for the Company, as the Hottentots were not suitable as labourers and, moreover, could not be induced to work. At the end of his term (1662) there were 76 colonists and more than 100 adult slaves in their service.

Van Riebeeck had laid the foundation of the new colony which had been set on foot largely as an experiment. After his departure

¹ In view, however, of the fact that tribal tradition and custom did not vest the ownership of land, pastures, or rivers in the chief but in the tribe as a whole, and that therefore those chiefs had no right to sell any land or watercourses, the Company's occupation of that tract of territory really rested on the right of conquest.

the Company definitely accepted the policy of permitting the exploitation of the agricultural and pastoral resources of the Cape, but in its own interest as a commercial company trading between Europe and the East and aiming to procure the water and provisions for the ships' crews at the minimum expense. The interests of the colonists were to be subservient to the interests of the Company. They were not granted a free market for their produce, but had to sell at fixed prices to the Company. This served to create a good deal of dissatisfaction and to retard the development of the colony. As a result of these restrictions on the sale of produce, the economic motive was not given full scope.

Prior to 1679 the scheme of colonisation had made little headway, but during the administration of Simon van der Stel (1679-99) a movement of rapid expansion was inaugurated. As a result of a substantial increase in the population from immigration, the colony was considerably extended. Shortly after his arrival at the Cape, Van der Stel had brought to the attention of the Company the importance of increasing the free population of the colony, in view of the abundance of good land. An attempt was made to induce persons of the agricultural class in Holland to emigrate to South Africa, whereupon about 50 farmers and mechanics, and a number of young women from the orphan institutions of Amsterdam and Rotterdam, were provided with passages in the outward bound ships and settled at the Cape.

In 1688 and 1689 there was an important accession to the colony's population in the arrival of about 200 French Huguenots from Holland. The revocation of the Edict of Nantes, by Louis XIV., had driven the Protestant Huguenots from France, many of whom had sought refuge in Holland. On the suggestion of the Netherlands Government, the Company undertook to settle some of them at the Cape, not merely to come to the assistance of those religious refugees, but largely to satisfy the need for more colonists at the Cape for the cultivation of vineyards and cornlands, with which they were well acquainted.

These immigrants were allowed a free passage to the Cape on the Company's ships, a gift of money varying from £5 to £10 in the case of the head of a family and from £2 10s. to £5 in the case of an unmarried man, and a grant of land, and were moreover furnished by the Company, on credit, with the necessary implements, seeds, and cattle. In return for these advantages they were to take the oath of allegiance and fidelity to the Company, and to remain at the Cape for at least five years.

In addition to these groups of immigrants there were occasional arrivals from Europe, attracted by the lure and possibilities of a

new country. But an important factor in the growth of the population was the natural increase, the increase of births over deaths, which was relatively large at the Cape owing to the fecundity of the colonists. In 1662 the children represented less than one-third of the total of the free population, whereas by 1708 they were in the majority.

As a result of immigration, discharge from the Company's service of those who were desirous of settling on the land, and the multiplicity of births, the number of free colonists increased rapidly. From 57 in 1658 it rose to 168 in 1672 and 1,308 in 1700.

Slavery.—Besides the servants of the Company and the colonists, another element had made its appearance in the population of the colony, from 1658, viz., *slaves*, who had been introduced on account of the scarcity of labour. As early as 1654 Van Riebeeck had remarked in his Diary that the cultivation of the soil and the work of sealing could be much more economically performed by slaves than by Europeans. In 1657 he informed the Assembly of Seventeen that the Hottentots could not be persuaded to work, that they could not be subjected to regularity and discipline, and that slavery was indispensable to the pursuit of agriculture. At that time slavery was in vogue in the other possessions of the Company, as also in the colonies of other European countries. The Company acted on the suggestion of Van Riebeeck, and in 1658 about 400 West African slaves were imported. Subsequently, however, most of the slaves were imported from the coastal regions of India, the islands in the East such as Java and Ceylon, East Africa and Madagascar.

From time to time the Company imported more slaves from the East. Some of them were sold to the colonists to serve as agricultural labourers, herdsmen and domestic servants, some to the officials and employees of the Company as ordinary servants, while the others were retained by the Company and employed in connection with public works and buildings. In this way the agricultural and pastoral industry, the only important industry of the colony, came to be based on slave labour, which remained in vogue until the emancipation of the slaves in 1834. In this way, also, the practice was initiated, and later confirmed by usage during nearly two centuries, of employing coloured labour almost exclusively in the agricultural and pastoral pursuits, and in domestic service, and regarding manual labour by the European inhabitants as a degradation.

General Economic Effects of Slavery.—The immediate economic effect of slavery was the locking-up of capital in slave labour. In all new colonies there was almost invariably a scarcity of capital,

and where slavery was introduced, this scarcity was intensified by the investment of capital in slaves, the result of which was that there was less capital available for investment in agricultural implements, livestock, wagons, roads, bridges, buildings, etc., and that the economic development of the colony was retarded. The ultimate economic effect was that idleness, ease, lethargy, extravagance and waste were fostered, due to the dependence on unpaid slave labour, and that consequently the accumulation of wealth was minimised, thereby perpetuating the scarcity of capital and depriving the colony of what has always been "the chief means of economic and social progress." Wherever slavery has prevailed, there has been the tendency, on the part of the European employers, to cultivate luxurious habits and expensive tastes.

The elements of extravagance and waste, however, were held in check at the Cape, to a certain extent, by the narrow margin of comfortable subsistence enjoyed by the colonists—the result of the restrictions and prohibitions imposed by the Company. But notwithstanding this narrow margin it was yet found necessary by Ryk Tulbagh to bring sumptuary laws into force in 1755, with a view to limiting the number of horses, carriages, jewels, slaves, etc., which an individual of this or that rank might possess.

This feature was better illustrated in the case of the southern states of the U.S.A., where, in spite of prosperous agricultural conditions, very little saving was effected under the régime of slavery, on account of luxurious living. The accumulation of wealth proceeded very slowly in comparison with the northern states, where slavery did not prevail and the agricultural conditions were in general less favourable, but where a spirit of enterprise and thrift had been engendered by a wholesome economic environment.

Although the institution of slavery might have been partially and temporarily beneficial from the material point of view, it was decidedly detrimental in an immaterial sense, and even materially in the long run.

Growth of Population in 18th Century.—During the 18th century the population of the colony was increased more than ten-fold. From about 1,300 in the year 1700 the number of free colonists advanced to about 5,000 in 1750 and 15,000 in 1795—the year which marks the end of the Dutch East India Company's rule at the Cape.

The sources of this increase in the number of free colonists were the following :

(1) *Immigration.*—Although there was no systematic importation of Europeans after the arrival of the French refugees in 1688-9, immigrants from all parts of Europe continued to arrive in small

numbers from time to time, with the object of taking up land and farming or pursuing one of the handicrafts. Immigration was not definitely undertaken and supported by the Company, as the Cape Governors felt themselves obliged by the exigencies of the situation to disapprove of it. For example, in 1717 the Assembly of Seventeen submitted the matter of immigration to Governor de Chavonnes for consideration. In his report it was stated that there was no need of immigrants, that immigration was undesirable, "especially as it is feared that poverty may increase," that "there are not 30 families in the three districts of Table Bay, Stellenbosch and Drakenstein which can be regarded as wealthy," that "as for the rest of the inhabitants, there is not one who has sufficient to support himself, or who has not mortgaged his property, either to the Orphan Chamber, or the Poor Fund, or to a fellow-citizen." Under such circumstances the Company did not actively participate in immigration.

(2) *Liberation of Servants of the Company* who requested their independence with a view to settling on the land. This was quite frequently done and helped to swell the number of colonists, although some returned to the service of the Company or left the country, with or without permission.

(3) *Sons of Servants of the Company* who preferred agriculture and cattle-breeding to the Company's service.

(4) *Natural Increase*—multiplicity of births and paucity of deaths. Mention has already been made of the fecundity of the colonists, which was characterised by Déherain as "la force principale des Boers." This was the most potent factor in the growth of the free population of the colony.

With regard to the slaves there was also a considerable increase. From 89 adult slaves in the service of the free colonists in 1658 the number rose to 1,147 in 1708, *i.e.*, thirteen-fold within 50 years, mainly as the result of importation. The natural increase was relatively small at first, due to the disproportionate relation between males and females. In 1708, for example, there were 981 male slaves in the service of the colonists, as compared with 166 females. However, continual immigration, in conjunction with the natural increase, brought the total number of slaves in the colony, whether in the service of the colonists or the Company or the servants of the Company, up to about 18,000 by 1795.

Expansion of Colony.—As the population of the colony increased, the territory was extended and the settlements pushed further inland.

During the first five years of the occupation, when the Cape served as a mere provision station of the Company, the settlement

was confined to Table Valley, where vegetable gardens were laid out, cornlands prepared for cultivation, and a wooden jetty constructed to facilitate the taking in of water by the ships. In 1657 colonisation was started and the Liesbeek settlement founded. Van Riebeeck and his successors organised a number of expeditions to explore the interior of the country and to ascertain something of its physical and economic geography, its agricultural, pastoral, mineral and water resources, and its inhabitants. As a result of these exploring expeditions several settlements and towns were founded, and the Company established a number of outposts, partly military and partly pastoral. These outposts were placed under the command of a corporal, with a squad of 12 or 14 soldiers, and were instituted for the purpose of grazing the herds and flocks of the Company, trading with the Hottentots, and protecting the cattle and sheep of the colonists against the thieving expeditions of the Hottentots.

In 1672 an outpost was established at Hottentots Holland (Somerset West), and in 1678 a settlement was commenced there. Then came Simon van der Stel, who vigorously applied himself to the expansion of the colony and the development of agriculture, including viticulture. In 1679 Stellenbosch was founded, and in the following year nine families were settled there. In 1687 a beginning was made with the settlement of the Great Berg River Valley. In that year 23 colonists were granted land at Drakenstein. It was in the new settlement of Drakenstein (including Paarl and French Hoek) that most of the French refugees were settled in 1688 and 1689. The rapid growth of the population rendered the opening of further settlements necessary, and in 1698 one was established at Wagenmakers Vallei (Wellington). The extension of colonisation again necessitated the creation of outposts, of which there were eight by 1700.

Like his father, Willem Adriaan van der Stel undertook the task of expanding the colony. In 1700 the settlement of Waveren (Tulbagh) was set on foot. The Tulbagh Kloof was passed, and a movement of eastward expansion, corresponding to the westward expansion in America, was inaugurated which had traversed almost the whole breadth of the country and reached the Great Fish River by 1795.

Factors in Eastward Expansion.—The factors which tended to accentuate this movement were the following :

(1) *Restrictions on Trade*, which had been imposed by the Company right from the start. The restrictions were screwed on tighter by Adriaan van der Stel and, moreover, carried out in an unjust and discriminating way, with the result that a feeling of

intense dissatisfaction was created. He was recalled in 1707, but the restrictions on the sale of farm produce were continued and were intensified in their effects as the population increased and the development of agriculture was promoted.

During the early period of the occupation, when the number of colonists and the land under cultivation were relatively small, the annual production was more or less equal to the annual consumption. There was just sufficient vegetables, fruit, corn and wine to satisfy the needs of the colonists, the Company's servants, and the ships calling at Table Bay for provisions. But when production had increased to such an extent that there was a surplus available, of which the colonists could not dispose in the absence of freedom of trade and overseas markets, the prices of agricultural produce declined considerably and some of the produce could not be sold, reducing the farmers to dire straits.

Many of the younger colonists, mainly the sons of established farmers and, to a smaller extent, the newly-discharged servants of the Company, disgusted with the unsatisfactory conditions prevailing in the colony and the scanty prospects of earning a living by agricultural pursuits, resolved to cross the mountain ranges and settle on the inland plains. There they lived a nomadic pastoral life, in imitation of the Hottentots and under the influence of physical and economic conditions. The movement was extended and continued all through the century. The Company was at first opposed to the movement, but subsequently decided to take advantage of the situation and bring the newly-settled territory under its dominion, thereby augmenting the revenue and increasing the food supplies of the colony. The system of loan tenure was adapted to deal with the problem, but it merely served to give an added impetus to the movement of expansion.

(2) *System of "Loan Leases,"* which was greatly extended after 1705. Not being able to prevent the eastward expansion, the Company resorted to the system of loan tenure for the new territory. Loan leases were issued, which were to be renewed every year on payment of the rent and were legally subject to resumption at any time by the Company, *i.e.*, the land was lent to the colonists for a year at a time in consideration of a certain rent. Under such conditions of tenure, in conjunction with an abundance of land, the colonists kept on "trekking" and moving further into the interior, where they were scattered far apart from each other and isolated from the outer world, having no roads, markets, churches, schools, or any of the conveniences of life.

Having passed the Tulbagh Kloof, the settlers followed the Breede River towards the coast and then moved eastwards. The

village of Swellendam was founded in 1745, and a magistracy and church established there. The Gamtoos River was declared the furthest limit of the colony and measures were taken to confine the settlers within those limits. It was all of no avail, for the farmers continued moving from one place to another. In 1778 the Great Fish River was proclaimed the boundary of the colony by Governor van Plettenberg, and in 1786 a magistracy was established at Graaff-Reinet.

Conflicts with Bushmen and Kaffirs.—During the period of eastward expansion conflicts with the native races of the country were inevitable. In the first quarter of the 18th century the Hottentots had been disintegrated and dispersed and had ceased to cause the colonists any anxiety. But those settlers who moved to the north-east over the Karroo plains encountered the hostility of the Bushmen, and those who advanced to the far-east encountered the Kaffirs. In the absence of military protection the border colonists organised commandos for the purpose of mutual defence.

After a long series of conflicts the colonists finally succeeded in dispersing and almost exterminating the Bushmen, but the warlike tribes of the Bantu race, surrounding the eastern borders of the colony, remained a serious menace from the time of the first conflict in 1779 until deep into the 19th century.

Commission of Inquiry (1792).—Under the administration of the Company the economic development of the Cape had been seriously retarded by the restrictions on trade, foreign and domestic. Trade was allowed only under certain conditions and within certain limits, and was hampered by numerous restraints. The trade restrictions were the main source of complaint and discontent amongst the farmers in the colony, *i.e.*, the bulk of the population. Petitions were signed on several occasions and delegates sent to Holland in 1779 and 1785 with a view to securing the removal of those restrictions, but the concessions of free internal trade and foreign commerce were withheld time and again. "If that were granted," the Fiscal (Boers) had said, "the Cape would soon be no longer a subordinate colony, but an independent state."

In view, however, of the decline of the prosperity of the Company and the numerous complaints of misgovernment in several of its settlements, the Stadtholder of the Netherlands appointed a Commission in 1791 to institute an inquiry into the affairs of all the settlements. Two of the Commissioners visited the Cape in 1792-3 and brought about a few desirable changes, although not by any means entirely to the satisfaction of the colonists. They reduced the civil and military establishments of the Company and altered

the tax system, providing for a proper assessment of the taxes. Economy, however, meant reduction of trade and business.

Moreover, they fixed a price at which the Company was to be supplied with as much grain as it needed, leaving the farmers at liberty to export any surplus they had to the East Indies or Holland provided it was shipped in Dutch vessels. The coast ports were declared open for trade, but the exportation of goods in foreign vessels and trading with foreigners, except in the case of provisions, were prohibited. A Loan Bank (called the Lombard Bank) was established with a paper money capital to relieve the distress of the colonists by enabling them to get loans at the rate of 5 per cent. on mortgage bonds and other securities. They also issued a proclamation warning the inhabitants "not to live beyond their means and not to keep costly equipages and establishments, but to cultivate silk, wool, cotton, wax, and indigo."

When the Commissioners had completed their work of reform at the Cape, which was largely of the nature of a compromise between the interests of the Company and the claims of the colonists, they proceeded to Batavia, leaving the Cape in charge of Commissioner-General Sluysken. But the trend of events in Europe and the unfavourable social and economic conditions of the colonists at the Cape rendered Sluysken's task a difficult one. For some time there had been an accumulation of discontent amongst the colonists of the border districts, which was destined to culminate in secession from the Company's rule.

Causes of Discontent amongst Colonists.—The main causes of the discontent were:—

- (1) dissatisfaction with the native policy of the Government, which was based on "peace at any price," on account of the expense and trouble involved in border hostilities, and characterised by the colonists "as working the destruction of the land," and especially with the terms of the treaty concluded with the natives at the close of the second Kaffir war in 1793 ;
- (2) restrictions on the sale of their produce and on trade in general ;
- (3) the inconvenience and loss occasioned to them by the depreciation of the paper currency which had been issued by the Government on several occasions since 1782, when Governor van Plettenberg had initiated the practice in view of the war between Holland and England and the consequent difficulty of importing the usual supplies from the Netherlands for the military and civil establishments ; and

- (4) the obligation to contribute toward the support of the Government in respect of land which, according to the border colonists, "they had been obliged to defend at their own expense without any assistance from the State."

End of Company's Rule at the Cape.—The diffusion of the principles of Jacobinism and Republicanism, of liberty, equality and fraternity, which had spread even to the Cape and had been communicated to the remote rural districts by the disbanded soldiers who had been allowed to settle there, served to fan the flames still more. The conditions were favourable for a revolt, and in the beginning of 1795 Graaff-Reinet and Swellendam threw off the yoke of the Dutch East India Company. There was general dissatisfaction with the Company's rule throughout the colony, and there was every likelihood of internal strife when, as the result of the course of events in Europe, the English fleet made its appearance in June, 1795, and forced the Cape Government to surrender soon after.

France had declared war on England and the Netherlands in 1793, and had invaded and finally conquered the Netherlands in 1795. The English had fully realised the importance of the Cape as a maritime station, "as the key to India and the East which the leading naval power of the world must hold possession of in all contingencies," and therefore decided to undertake the conquest in order to prevent a point of such strategical importance, forming a convenient base from which India and the Indian trade could be attacked, from falling into the hands of France. In this way the rule of the Dutch East India Company in South Africa was brought to a close.

Economic and Social Conditions at the Cape in 1795.—The economic and social conditions prevailing at the Cape on the termination of the Company's rule, may be briefly stated. The colony was sparsely populated by an European population of about 15,000, spread over a large extent of territory from Table Bay to the Great Fish River. Towns had been founded at Cape Town, Stellenbosch, Swellendam and Graaff-Reinet. In Cape Town and its immediate vicinity (Western Province) the inhabitants had attained some measure of material prosperity. They were housed in substantial and comfortable dwellings, and had made some progress in agriculture and viticulture. Elsewhere the settlers, living for the most part in isolated homesteads, gained a scanty subsistence by the pastoral industry and hunting. There were hardly any roads; there was very little trade in view of the numerous restrictions and prohibitions; there was no system of education; and there

was no manufacturing industry, with the exception of a few minor handicrafts.

The Company had consistently opposed all branches of industry involving special processes in preparing the raw material or in manufacturing the finished article. Not even the roughest fabrics were permitted to be made at the Cape from the raw wool obtainable. The Fiscals had always been most strongly opposed to any suggestion for the establishment of manufacturing institutions and the admission of the more important handicrafts, on the ground that it would be detrimental to the Company's factories in Holland—a principle which has been associated with the colonial enterprises of all countries at all times ; but according to Commissioner-General de Mist, their objections were really based on self-interest, since, if such industries were to be encouraged, the customs revenue from the duties which they were in the habit of usurping, would be materially diminished, and this would, of course, affect the pocket of each Fiscal in turn.

Agriculture and the pastoral industry were practically the sole sources of wealth, and these were hampered and retarded by the restrictions on trade and the lack of transportation facilities.

The system of government was wholly inadequate. The commercial basis upon which the Company's government had been established, although it might have been suitable for a small settlement—a provision station—was insufficient for a large colony. The main aim was to make a profit on its trading operations. Such a policy was inseparable not only from the Dutch East India Company, but also from all the large trading companies of that time, viz., “ that its own advantage should have a prior claim to the industry and ability of its servants, and that the means of furthering the prosperity and happiness of the individual and the advantages of free trade should be of secondary importance.

So long as the production was no more than sufficient to balance the consumption, *i.e.*, an equilibrium of supply and demand, the colonists were not seriously affected by their limitation to the cultivation of vegetables, fruit, cornlands and vineyards, the breeding of cattle and sheep, and the exercise of the minor handicrafts, although of course the prices of their produce, as fixed by the Company, were lower than would have been the case under free competition. But when that balance between supply and demand came to be disturbed, due to the fact that the production of farm produce increased at a more rapid rate than the consumption thereof in the absence of freedom of trade and markets, the colonists found themselves under very adverse circumstances.

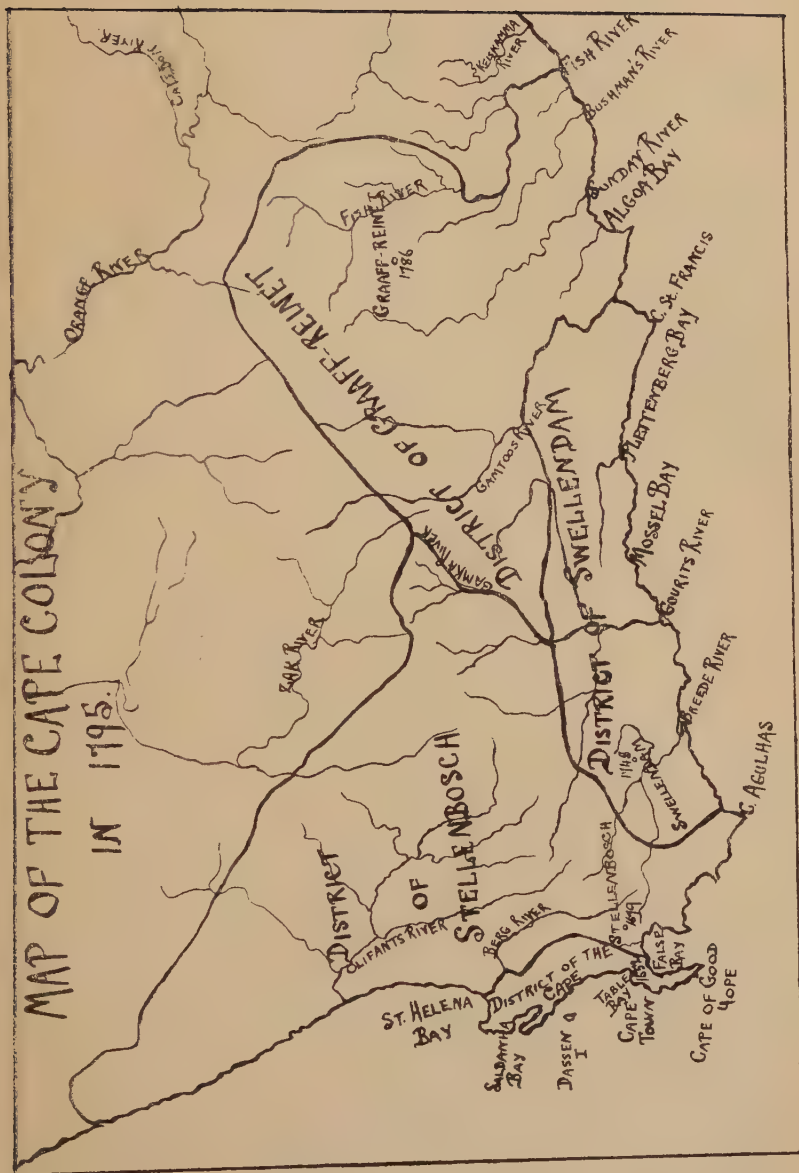
The great bulk of the inhabitants were engaged in the agricultural and pastoral industry ;² the demand for agricultural and pastoral produce from the local market, which was of limited scope in view of the restrictions on internal trade, was inevitably less than the supply ; the restrictions on foreign trade minimised the opportunities of obtaining overseas markets to absorb the surplus produce ; and as a result of the restrictions on manufacturing, there was no other field of employment.

The governmental structure had not been adapted to conform to the requirements of an expanding European population and rapid economic development—hence discontent, degradation, primitive agricultural conditions, etc.

² The number of the inhabitants engaged in commerce, handicrafts, fishing, sealing and lumbering was relatively small.

MAP OF THE CAPE COLONY

IN 1795.



CHAPTER 2.

INFLUENCE OF ECONOMIC FACTORS ON THE PROCESS OF SETTLEMENT AND THE PROGRESS OF COLONISATION.

The process by which the Cape was settled and colonised, both intensively and extensively, was determined by the action and interaction of economic, political, social and physical forces ; but of these the economic forces were of paramount importance in shaping the internal organisation and expanding the area of the colony. The process of settlement was indeed influenced mainly by economic factors, but these were again subject to the influence of political, social and physical forces, which in some cases modified, and in others accentuated, the action of economic forces. Especially in connection with the dispersion of the stock farmers during the 18th century was there an interaction of all those forces.

The economic factors underlying the process of settlement and the progress of colonisation were the following :—

- (1) the character and growth of the population ;
- (2) the system of land tenure ;
- (3) the relation of land to labour and capital ;
- (4) slavery as a labour force ;
- (5) transportation and communication ;
- (6) market and trade opportunities.

Population.—Population is an important factor in the economic development of a country, not only from the point of view of production but also of consumption. Man is a consumer as well as a producer. Man creates a demand as well as a supply. The character of economic development in a country is largely determined by the character of the population, by the conduct of men in their capacities as producers and consumers. According to Professor Lippincott¹ “ physical strength, endurance, ability to resist disease, or to devise means for their prevention, nervous energy, versatility, thrift and enterprise, all play an important part in constituting the right kind of a man to develop a country.”

To what extent did the early colonists comply with those requirements ? To what extent were they suited to the cultivation of the products for which there was a demand, or to what extent could

¹ Economic Development of the United States, p. 14.

they adapt themselves to the new environment and the peculiar physical conditions or to the new forms of employment?

The expedition to the Cape in 1652, under the command of Van Riebeeck, was composed mainly of soldiers and sailors, together with a few gardeners, craftsmen and ordinary labourers. During the first five years of the occupation of the Cape, when it was nothing more than an intermediate refreshment station of the Dutch East India Company, all the European inhabitants were servants of the Company. Their operations were limited to: (1) the defence of the station against the aborigines, the wild beasts, and the attacks of hostile ships; (2) the erection of a fort, hospital, jetty, dwellings and barracks; (3) the cultivation of wheat, vegetables and fruit merely for local consumption and the provisioning of the Company's ships; and (4) bartering cattle from the natives.

The operations were few and simple and did not call for much versatility. The settlement was confined to Table Valley and all the land occupied and brought under cultivation belonged to the Company. It was a provision station operated as a single comprehensive establishment under the direction of the Commander and the Council of Policy. Division of labour was carried into effect. The various kinds of work were allocated to those best suited thereto. The work of construction was placed in charge of the craftsmen, and that of cultivation in charge of the gardeners. The unskilled work in connection with construction and cultivation, as also the work of defence, was performed by the soldiers and sailors. Thus the problem was at first a relatively simple one and easily solved. All were in the service, and subject to the strict discipline, of a trading company.

In 1657, however, when a beginning was made with colonisation by settling nine discharged soldiers and sailors on the land, the problem acquired a new aspect. The first farmers were not well acquainted with the details of agricultural operations. Having been soldiers and sailors they certainly did not lack physical strength and endurance, but many of them did lack versatility, resourcefulness and enterprise. They were each given a little farm with the necessary seed, implements and live stock, and slaves were imported to provide the labour. They were suddenly transferred from the strict discipline of the army and the navy to the freedom and responsibility of an independent farmer. The discharged soldier, in his new rôle as farmer, was to manage a farm, direct labour, prepare the soil for the growing of corn and vegetables, handle agricultural implements, overcome natural obstacles and disabilities, etc. The outcome was that many returned to the service of the Company, or fled from the country by secretly going

on board one of the homeward-bound ships which had called at Table Bay to take in water and provisions. Of the first nine farmers, for example, only two remained on the land.

Prior to 1670 the farmers, the so-called free burghers, were recruited merely from the servants of the Company, most of whom were of the ordinary type of soldiers and sailors. The Company had indeed tried to induce people of the agricultural class in Holland to emigrate to the Cape, but at the time the Cape did not seem to be a point of attraction. During the period from 1670 to 1700, however, several hundred Dutch, French and Germans arrived in the colony, amongst whom there were many farmers as well as artisans.

These immigrants represented a very valuable accession to the population and were in most cases permanent additions. They had come to stay and were, moreover, endowed with most of the qualities necessary for the development of a new colony. They were familiar with the cultivation of cornlands and vineyards and the exercise of the more essential crafts, and were settled at what are now known as Somerset West, Stellenbosch, Drakenstein, Paarl, French Hoek, Wellington and Malmesbury, where the production of corn, wine and brandy increased with comparative rapidity until, as a result of trade restrictions and the lack of markets, the supply outran the demand and stagnation set in. In general they were industrious, enterprising, resourceful, firm, and men of principle, and as such they constituted a valuable asset to the colony.

Thus, at the end of the 17th century the farmers at the Cape consisted of Dutch, French and German immigrants, of discharged servants of the Company, and of sons of servants who preferred agriculture to the service of the Company. Those who were unsuitable for farming under the unfavourable conditions prevailing in a new colony, due to a lack of the requisite knowledge or perseverance and endurance or versatility and enterprise, were gradually eliminated. They returned to the service of the Company or left the country. It was a case of the survival of the fittest. The best remained on the land and formed the original stock from which the greater part of our rural population, with the exception of that in the Eastern Province of the Cape and the eastern districts of Natal, has sprung.

After 1700 the new farms were taken up mainly by the descendants of the existing farmers. During the 18th century there was no systematic immigration. There were merely occasional arrivals from Europe. Also, from time to time, servants of the Company were released and settled on the land. But the main source of increase of the population was the increase of births over

deaths, and of course those who were born in the colony were brought up in the new environment and could more easily adapt themselves to the peculiar conditions of the country.

The problem of a suitable population, therefore, did not present any great difficulty at the Cape in the 18th century. The increase of the rural population (the great bulk of the free population) came primarily from the original stock that had been firmly established on the soil during the latter part of the 17th century, after a natural process of elimination of the unfit. They were capable of developing the colony provided the other economic factors were favourable, but the development was seriously retarded by the restrictions on trade and industry, the lack of transportation facilities, the system of loan tenure in the interior, the scarcity of capital, etc. Production was held in check by the fact that the restrictions on foreign trade deprived the colonists of an outlet for their surplus produce and consequently of purchasing power abroad, and that local consumption was kept within narrow limits by the restrictions on internal trade and industry. The absence of the manufacturing industry meant the absence of a local market for agricultural and pastoral produce. With the exception of the Company's employees and a few craftsmen, merchants, fishermen, and lumbermen, all were farmers or farm labourers or their dependents. There was very little diversification of occupations. All produced more or less the same commodities for which there was hardly any outlet. There was no foreign market and the local market was confined to the passing ships' crews, the garrison, the officials and the slaves in the service of the Company, and the handful of craftsmen, merchants, etc.

The result was that the farms tended to approximate self-sufficing economic units—a tendency which has survived to some extent and is still to be observed in some localities. The aim of all production is consumption, whether present or future. Man will only produce to the extent that he can acquire consuming power, and if he is prevented, by burdensome restrictions as at the Cape under the Dutch East India Company, from using his producing power to acquire consuming power, he will curtail his production and produce merely for his own domestic consumption. The outcome of such a state of affairs was stagnation in the only important industry of the colony—the agricultural and pastoral industry—meagre production, small consuming power and, consequently, a low standard of living, backwardness, conservatism, self-satisfaction, etc. And it must be borne in mind that this was the economic environment in which the foundation of our rural population was laid.

Land Tenure.—The first farmers of the Cape, who were settled along the Liesbeek in 1657, acquired land on freehold² tenure. It was resolved by the Council of Policy “that, after three years, the holders were to be granted all the land in full and free property which was found to have been ploughed and cultivated, whether by them alone or with the assistance of others.” The result of this condition was that, with the primitive methods and means of cultivation of rough land at the disposal of those settlers, their farms were of comparatively small size for a new country with an abundance of good land, and that the initial system of agriculture and land tenure was a fairly close approximation to the system of peasant farming prevailing in Europe. The average holding was about 26 acres. The Liesbeek settlement was thus a close agricultural settlement, a settlement of small proprietors devoted to the cultivation of cereals and vegetables.

At first cattle and sheep were usually obtained from the Hottentots by barter, but in view of the uncertainty of the supply from this source the farmers were encouraged to undertake the rearing of livestock in addition to agriculture. This necessitated the granting of additional areas of land for grazing which were to be held, not on freehold tenure as in the case of agricultural land, but on the so-called “loan³ tenure,” *i.e.*, the land was lent or leased to the settler by the Company for a year at a time, the lease to be renewed every year and being revocable at the expiration of the year.

This combination of freehold and loan tenure was extended to the other settlements which were formed during the last quarter of the 17th century, such as Hottentots Holland, Stellenbosch, Drakenstein, and Wagenmakers Vallei. Grants of land on freehold tenure were made from time to time, either gratuitously or in return for services rendered to the Company, or in some cases on payment of a certain sum; and permits were granted to agriculturists to graze their cattle in a certain locality subject to the rights of others in the vicinity, the grazier selecting a piece of land and applying to the Council of Policy for permission to settle there for one year, when the permit or lease would have to be renewed. In this way the combination of freehold and loan tenure was both a result and a cause of the combination of agriculture and stock farming, which is still in vogue in many parts of South Africa, more particularly the wheat and maize belts where stock farming is generally a very significant adjunct to the cultivation of cereals. In some cases it is of no less importance than agriculture as a component part of the whole.

² Dutch equivalent “Eigendom.”

³ Dutch term “Leening.”

The system of freehold tenure was of course the most secure form of tenure and the one that was most conducive of stability, improvement and development, but although the words "full and free property" were used, the tenure was, according to legal theory at any rate, burdened with stringent and irritating conditions. In some instances the terms of the title deed required the settler to deliver to the Company one-tenth of his annual produce (tithe), and to allow thoroughfare without any compensation in the majority of cases. "He had to cultivate the land to the full extent that it was capable, to plant trees, and where he cut down the latter, to put others in their stead. To contravene any of these conditions meant the forfeiture of the land." In practice, however, these conditions were not rigidly enforced and did not prove to be burdensome.

Loan tenure, on the other hand, was the form of tenure which offered the least legal security to the occupier. Insecurity of tenure has been, in all countries and at all times, detrimental to improvement and progress. As long as the system of loan tenure was confined within narrow limits and made to serve merely as an accessory to freehold tenure, for the purpose of encouraging the incorporation of stock farming with agriculture, the results were favourable; but when, after 1705, it was applied as an entirely independent form of tenure and came to be the usual basis of occupation of new lands, the evil effects of insecurity of tenure became more apparent. It must be borne in mind, however, that, on account of the custom based on lax enforcement and established after years of non-interference by the Company, loan tenure was not as insecure as the literal interpretation of the terms of the lease would imply.

The principle of loan tenure was brought into practice at the Cape as early as 1655, in which year permission was granted to some of the Company's servants to use certain small plots of land in Table Valley for garden purposes, on the understanding that those grants were to be regarded merely as loans. The land was held on loan for a period of three years and without payment of any rent. From 1657, however, land was granted in freehold to discharged servants of the Company and immigrants from Holland, France and Germany; and when stock farming was undertaken along with agriculture, additional areas of land were granted on loan tenure for grazing purposes.

The system of loan tenure continued to hold a subsidiary position until the beginning of the 18th century when, as the result of two factors, it came to the foreground and became the more common method of acquiring the right to occupy new land. In the first

place, the Company was no longer in favour of the granting of land in freehold to new settlers. By 1700 the settlements between Cape Town and Tulbagh were more than capable of supplying the Company with all the vegetables, grain, fruit, wine, brandy, beef and mutton required for its garrison and ships. The main aim of the Company had thus been realised, and consequently it had no particular inclination to promote and extend colonisation any further.

Secondly, the lack of markets for agricultural produce, due to the restrictions on trade and industry, made it necessary for the new settlers (discharged servants of the Company, sons of farmers or of men in the service of the Company, and immigrants from abroad) to take recourse to stock farming rather than agriculture. They were further induced to do this by reason of the fact that stock farming needed less capital and labour than agriculture, and that barriers to communication, such as mountain ranges, rivers, bad roads, etc., could be more easily overcome by graziers than agriculturists. Capital and labour are always scarce in a new country, and there was moreover an entire lack of adequate means of communication. By the beginning of the 18th century most of the land between the sea and the mountain ranges, from Cape Town to Tulbagh, was occupied either on freehold or loan tenure, and the new settlers began to cross the mountains and settle in the interior. They chose the line of least resistance and directed their attention to stock farming as a livelihood, for which the system of loan tenure appeared to be well suited.

These two factors led to the wholesale application, after 1705, of the principle of loan tenure to stock farming as an independent enterprise. The Company had become averse to the granting of land in freehold and resorted to the issue of loan-leases to the stock farmers. The rise of the pastoral industry in the interior brought new problems into the foreground. The scantiness of the pastures and the lack of an adequate natural supply of water rendered it necessary for the stock farmers to seek new pastures and watering places for their cattle and sheep from time to time, so that they were constantly on the move. The system of loan tenure, whereby land could be obtained on loan for a year at a time, made it easy for the farmer to move about. If the land became unsuitable for grazing or inadequate for his increasing stock of cattle, or if the available water resources were insufficient and uncertain, he could move further on, select a more suitable locality, and take out a permit for the new land. In addition, the fact that the Company had the power to revoke the lease at the end of the year and take possession of the land again, although

not exercised as a general rule, was not an inducement to many of them to settle permanently on one farm, improve the pastures, erect substantial and comfortable dwellings, and take measures for the conservation of water.

The legal insecurity of loan tenure and the ease with which it enabled the colonists to move from one piece of land to another, were two of the main contributing factors in the dispersion of the stock farmers in the 18th century. Loan leases fostered the growth of nomadic practices, of the "trekking" habit which was characteristic of the Cape stock farmer.

The evil effects of the insecurity of loan tenure were gradually realised by the authorities, who introduced a new form of tenure in 1732, known as Quitrent⁴ tenure, whereby land could be held by a farmer for a period of fifteen years on payment of an annual rent. At the expiration of that period the Company could resume possession of the land, on payment of compensation for the buildings, plantations, or crops at a proper valuation. This form of tenure did indeed offer greater legal security to the occupier who, by reason of the long period of the lease, would be able to reap the benefits of any improvements made by him and could therefore be induced to make improvements. It was also more just than loan tenure, as the rent varied according to the fertility or other natural advantages of the land.

However, very few stock farmers availed themselves of this opportunity for more secure tenure, since they had already become accustomed to the habit of "trekking" and found the loan lease admirably suited for that purpose; and, moreover, in view of the fact that the Company derived a substantial revenue from the so-called Loan Places⁵ (loan farms) in the form of rents, tithes and registration charges, the authorities were not very anxious to make quitrent tenure displace loan tenure in the interior. Quitrent tenure was merely to supplement the existing forms of tenure, to enable farmers to acquire "new pieces of land annexed to the old, on quitrent for a term of 15 years." As such it was applicable to the freehold farmers in the Western Province who did, in many cases, make use of it, but it was not attractive to the loan farmers in the interior and was in consequence rarely adopted. If quitrent tenure had been made to conform to the requirements of the stock farmers and rendered more palatable to them by making it applicable to large areas of land, sufficient for stock farming, it might have displaced loan tenure and brought about a more permanent settlement. This again would have minimised "trek-

⁴ Dutch "Erfpacht."

⁵ Dutch "Leeningsplaatsen."

king," stemmed the tide of eastward expansion, and altered the course of the development of the interior.

In 1743 another half-hearted attempt was made by the authorities to overcome the insecurity incident to loan tenure, viz., by the conversion of Loan Places into "Loan Freehold"⁶ or "Perpetual Loan" farms. This change gave permanent tenure and afforded security with respect to improvements, with the privilege of transfer and testamentary disposition, but a Loan Freehold farm was to be merely 60 morgen in extent, and a rent of 24 rixdollars had to be paid in addition to a sum ascertained by valuers upon delivery of the Title Deed. The result was that very few stock farmers adopted this new form of tenure, as it meant the conversion of a loan farm of about 3,000 morgen⁷ into a loan freehold farm of 60 morgen, with the same annual rental.

The loan lease remained the most important form of land tenure in the interior under the administration of the Dutch East India Company, and even under British rule until 1813, when perpetual quitrent tenure was instituted. At that time no less than five-sixths of all the occupied land at the Cape was held on loan tenure. It was a factor of no mean importance in the settlement of the Cape. It gave an impetus to the movement of expansion and encouraged nomadic practices, which moulded the character of the South African farmer and made him an individualistic, independent, self-reliant, conservative and self-satisfied being. Whereas freehold tenure had fostered the growth of permanent and relatively intensive settlement in the Western Province, loan tenure tended to quicken the process of "trekking" and the dispersion of the stock farmers over almost the whole breadth of the country.

Relation of Land to Labour and Capital.—In the Cape Colony, as in all other new colonies, the relation of land to labour and capital was governed by the following set of circumstances, viz., abundance of land, scarcity of labour for hire, and scarcity of capital. The result was that, in order to bring about the most economical combination and organisation of the three factors of production, more land was used in proportion to labour and capital than in the old countries. In other words, the agricultural and pastoral organisation was established on such a basis as to take full advantage of the abundance and cheapness of land and to counteract, as far as possible, the disadvantages of the scarcity of labour and capital.

⁶ Dutch "Leeningsseigendom."

⁷ The extent of a loan farm (or Loan Place) was determined in the following manner: a central spot was selected and half-an-hour's walk on all sides from there formed the points of the boundary line, the result being generally an area of about 3,000 morgen. 1 morgen = $2\frac{1}{2}$ English acres.

The tendency was therefore in the direction of extensive rather than intensive farming, as under the above conditions a farmer will always find it more economical to spread his labour and capital over a larger area than to concentrate on a smaller area and try to make each acre produce all that is physically possible. He will find it to his advantage to economise in respect of capital and labour rather than land. It follows that, where land, labour and capital are organised in such proportions, an agricultural and pastoral colony will expand and spread out over a wider and wider area as its population increases, so long as there is still new land available.

In the initial stages of colonisation, however, agriculture was conducted on a comparatively intensive basis due to (1) the proviso that the first colonists were to acquire full ownership of only so much land as they brought under cultivation within three years, which was of small extent in view of the difficulty of clearing and cultivating new land as well as the scarcity of labour; and (2) the cultivation of products of intensive agriculture, such as vegetables, fruit, wine and brandy, or of products of extensive agriculture, such as wheat, rye, barley and oats, in small quantities only. But when loan tenure came into general use and the colonist could obtain a lease of a large area of land at a low rent for stock farming or the cultivation of corn, the natural tendency towards extensive farming and dispersion was clearly manifested.

At the Cape land was easily obtained by the new settler at a low price or a low rent, or even entirely free on condition of settlement and cultivation. Moreover, the charges on the land in the form of taxes, tithes and rents were relatively low. Hence the colonists did not economise land but spread their labour and capital over large areas.

The scarcity of labour for hire, due to the abundance and cheapness of land and the ease with which anyone could obtain land and become an independent farmer, was partially remedied by the introduction of slavery. Wherever there has been an abundance of unoccupied agricultural and grazing land to which the settler had easy access, there has been a scarcity of labour and the consequent difficulty of securing what Wakefield called "combination and constancy of labour"—*i.e.*, the difficulty of inducing a number of people to combine their labour for any purpose, and of maintaining a constant supply of labour. There was not much likelihood of men remaining in the position of farm labourers when they could easily become independent farmers themselves. And the Hottentots could not be induced to work or be subjected to regularity and discipline. Accordingly slaves were imported to solve the labour problem and provide the farmers with labourers, just as

in the case of the American colonies where similar conditions likewise produced a scarcity of labour and the necessity of importing slaves.

The scarcity of capital, which is virtually inevitable in a new colony, was rendered worse at the Cape by the combination of two factors, viz., slavery and restrictions on trade. Slavery absorbed a good deal of capital which would otherwise have been invested in agricultural implements, live stock, wagons, roads, bridges, buildings, etc., and also fostered the growth of idleness, ease and extravagance whereby the accumulation of capital was retarded ; so that slavery not only increased the demand for capital, but also tended to restrict the supply thereof, thereby widening the margin between the supply of and the demand for capital. The investment of capital in slaves was a substantial item in the demand for capital, as the ordinary purchase price of a slave ranged from 80 to 300 rixdollars (£16 to £60), and the reduction of saving by the growth of luxurious habits and expensive tastes under the conditions of slavery meant an important limitation of the supply of capital. This was especially detrimental as in such a new colony nearly all the capital had to be accumulated by the process of saving from domestic industries, in view of the difficulty of importing capital from abroad into a colony which could offer but little security as a basis for credit.

The scarcity of capital was further accentuated by the restrictions on trade to the extent that those restrictions diminished the ability of the colonists to earn a surplus and so to save. The opportunities of the farmers for making a substantial profit were considerably reduced by the limitation of trade to certain channels only, and consequently they were less able to save and accumulate capital than would have been the case under freedom of trade. The lack of transport facilities also helped to make it less likely for the farmer to earn a profit. As a result of the scarcity of capital, the economic development of the colony was unduly retarded and extensive farming encouraged to a greater degree.

Slavery as a Labour Force.—The introduction of slavery at the Cape, in 1658, was rendered necessary by the scarcity of labour for hire and the difficulty of organising free labour for agricultural purposes, and to that extent it was justified. Slavery was the only available means, at the time, of securing the labour required to produce the vegetables, grain, fruit, etc., which were to serve as the provisions for the Company's ships, and the production of which furnished the chief motive for colonisation. The statement of Professor Callender,⁸ with reference to the American colonies,

⁸ Selections from the Economic History of the United States, p. 738.

that negro slavery appears to have played a necessary part in the settlement of the New World in the 17th and 18th centuries (as there were no other means of producing the great staples which Europe wanted from America), is no less applicable to the Cape. The only important difference is that the Cape needed slave labour for the production of foodstuffs for the ships' crews, whereas the American colonies required it for the production of cotton, tobacco, indigo, and rice for the Mother Country and Europe.

The maintenance of slavery as a labour force at the Cape, during the whole period of the Company's rule, was justified, to a large extent, by the continued scarcity of labour. This was again due to the fact that, as long as the European inhabitants were in contact with vast areas of unoccupied land, they could not be induced to work for wages as they were encouraged by the opportunities for independence to work on their own account. They could easily obtain land on loan tenure in the interior and satisfy their primary and immediate wants by stock farming with a minimum of exertion.

Slavery prevailed mainly in the agricultural settlements in the Western Province, where all the agricultural operations were performed by slave labour under the direction and supervision of the farmer. In the interior, where stock farming was in vogue, slaves were not used to any great extent.

Now, what were the effects of slavery on the agricultural organisation of the Western Province? Slave labour was used in agriculture because free labour was not available, and consequently the system of agriculture was adapted so as to conform to the requirements of slave labour. In order to render slave labour economical and profitable under the prevailing conditions, it was necessary to conduct agriculture extensively and on a large scale. Slave labour required careful supervision and strict discipline, and such could be exercised more economically over a large than a small number of labourers. A farmer who had to direct and supervise slave labour on his farm found it more profitable to employ ten than five and extend his operations. The economies of extensive and large-scale cultivation of new and cheap land were to counterbalance the inefficiency of slave as compared with free labour. The inefficiency of slave labour, however, was not of much importance in the 18th century, in view of the scarcity of capital and the primitive character of the tools and implements which threw the burden of the work mainly on hand labour. There is much less likelihood of slave labour being uneconomical where very little capital and merely primitive implements are available than where a great deal of capital and labour-saving devices can be readily obtained. To

this extent slavery was justified, and rendered profitable, by the economic conditions of the Cape in the 17th and 18th centuries.⁹

In this way the system of agriculture in the Western Province came to be based on slave labour and made to conform to the economics of slavery, in accordance with which a system of extensive and large-scale agriculture was evolved.¹⁰ This is still a peculiar characteristic of South African agriculture in view of the fact that coloured labour, though free since the abolition of slavery in 1834, has remained the most important type of farm labour, and that the economics of free coloured labour closely resembles that of slave labour.

Transportation and Communication.—The economic significance of facilities of transportation and communication is clearly obvious. It is an indispensable requisite of rapid economic development and is closely related to the production, consumption, exchange, and distribution of wealth. By means of transportation commodities are brought to the places where they can be used. The processes of agriculture, mining and manufacturing create merely the intrinsic utilities of form or quality, whereas transportation creates place utilities, *i.e.*, the usefulness of an article at a certain place where there is need of it. Transportation is the most important agency by means of which producers and consumers are brought together, and improvements in transportation tend to increase the availability of consumable commodities. By rendering a larger quantity and variety of commodities accessible to the consumer, in view of the reduction in the cost of obtaining those commodities, it raises the standard of living, and that again leads to increased physical and mental vigour, efficiency, ability, intelligence, etc.

On the contrary, the lack of transportation facilities tends to promote stagnation, primitive conditions and methods, and a low standard of living. It alters the whole nature of a proposed settlement and retards the development of a country. This was the case at the Cape where, throughout the period of the Company's rule, an almost entire lack of cheap and easy means of transportation

⁹ In the 18th century there were only two men of importance who disapproved of slavery at the Cape, viz., Captain de Chavonnes and Governor-General Van Imhoff, the former on the ground of "cheap labour" being "bad labour," and the latter because the presence of slaves made every common or ordinary European want to become a gentleman and prefer to be served rather than to serve, and also because the money spent on slaves went out of the country to its loss whereas the wage-earners contributed to the revenue of the Company and the welfare of the country.

¹⁰ Van Imhoff had also remarked that the majority of farmers at the Cape were not "farmers in the real sense of the word, but plantation owners." Slavery had the same effect on the system of agriculture in the southern states of America.

proved to be a serious impediment to the progress of colonisation, the improvement of the ways of living, and the development of social intercourse. It helped to perpetuate the isolation to which the stock farmer in the interior was exposed, and in that way to render him immune to the civilising influences of social intercourse and education.

The only available means of transport at the Cape was the ox-wagon. There were no railways, no navigable rivers, no coastal trade, and not even any roads in the modern sense of that term. They were merely trails or beaten tracks which had developed into rough wagon roads. The cost of transportation was enormous and served as an important obstacle to the growth of internal trade. According to Van Beaumont, an official in the service of the Company at the Cape, many grain or wine farmers needed eight days or more for the journey to Cape Town and back to the farm, "during which (including the wear and tear on the wagons and cattle) they spend almost as much as they can make from their produce.' Moreover, there were no bridges over the rivers and streams, and no mountain passes, so that those who lived on the other side of the great mountain ranges were virtually cut off from intercourse with the more highly developed settlements in the Western Province. It took some of them one, two or three months to make their annual visit to Cape Town and return to the farm with the comparatively small quantity of commodities which they had purchased.

The great disadvantage to which the Cape was subjected was the entire lack of navigable waterways. This was all the more prominent at that time, in view of the absence of railways and well-constructed roads. The whole of the internal trade had to be handled by the expensive and cumbersome method of transportation by ox-wagons over rough roads. In the American colonies, on the other hand, waterways played a very important part in the economic life of the people. There was a large number of navigable rivers (Hudson, Delaware, Schuylkill, etc.) which afforded a cheap and easy means of transportation. The problem of inland communication presented no great difficulty. Those waterways largely controlled the location of settlements, because pioneers usually took up sites along the rivers which afforded the best means of communicating with the outside world. In Canada also the first settlements were formed along the St. Lawrence River. But at the Cape there were no such navigable rivers to facilitate the formation of settlements and to keep them in contact with other parts of the country as well as the outer world. It was one of the factors which exercised a powerful restraining influence on the progress of the colony.

Market and Trade Opportunities.—According to Professor Callender, the most important feature of economic life in a colony or newly settled community is its commercial connection with the rest of the world. Upon this more than any other circumstance depends its prosperity. It may be true, as a general rule, that, in the words of Adam Smith, “the colony of a civilised nation which takes possession either of a waste country, or one so thinly inhabited that the natives easily give place to the new settlers, advances more rapidly in wealth and greatness than any other human society.” But this progress does not take place unless the colony possesses markets where it can dispose of its staple products. A newly settled country cannot enjoy considerable economic prosperity, or make notable social progress, without a flourishing commerce with other communities.

The reasons for the primary importance of foreign commerce to a new colony have been carefully outlined by Professor Callender in the following manner. The only marked advantage in the production of wealth, which new communities possess over old ones, lies in their rich natural resources. In all other respects they are likely to be at a disadvantage rather than otherwise. Their labour, considered as a separate factor of production, is not more productive than that of older communities. The knowledge of the arts (of production) is likely to be less and the difficulty of combining and organising labour, amounting in many colonies to practical impossibility, more than counterbalances the superiority of energy which the inhabitants of a new country may possess. Then, too, the outfit of capital in a new country, by means of which its labour is applied to the natural resources, is inferior to that of older countries, whose inhabitants are of the same grade of civilisation. Under such conditions it is clear that to advance rapidly in the production of wealth new countries must devote their labour chiefly to those extractive industries, in which they can utilise their rich natural resources. But to do this they must be able to find markets in other communities, where they can exchange the products of these industries for all the other forms of wealth they may require, or where they can secure money on credit with which to purchase them in still other communities. Without these markets their one great economic advantage, rich natural resources, cannot be utilised.

Foreign markets and foreign trade, therefore, are absolutely vital elements in both the economic prosperity and the social progress of new communities. The American colonies possessed this prime requisite of prosperity and advanced very rapidly. There were, indeed, some restrictions on their foreign trade, as in the case of the

"enumerated commodities," but in general they had a relatively free hand in the disposal of their surplus produce. At the Cape, however, trade was subject to numerous restrictions, and even prohibitions, as a result of which there was hardly any outlet for the surplus produce of the colonists. There was virtually no foreign trade and very little internal trade, and consequently the Cape advanced with almost extreme slowness. It was more of a static than a progressing community, contrary to the statement made by Adam Smith, mainly because there were no foreign markets; and the internal market was of very limited scope in view of the restrictions on manufacturing.

There were few market and trade opportunities for the colonists of the Cape. With the exception of occasional exports to Holland and the East Indies on the part of the Company, the market for agricultural and pastoral produce was confined to (1) the ships calling at Table Bay for provisions, (2) the Company's officials, garrison, and slaves, and (3) a small number of craftsmen, traders, etc. The colonists were only allowed to sell their produce to the Company, at prices fixed by the Company, and to foreign ships in the Bay three days after arrival. In general they were not allowed to export on their own account, and after a time they were even prohibited from trading with the natives. On some occasions the Company exported grain, wine and brandy to Holland or Batavia, but it was never conducted on any large scale and was in general a precarious method of dealing with the surplus produce.

The reason for these restrictions is to be found in the "colonial" policy of the Company. As a trading association the main aim of the Company was to make a profit on its trading operations. The Cape was regarded merely as a refreshment station on the route between Holland and the East. The Company did not aim at colonisation, in the modern sense of the term, but merely sought to procure the necessary provisions for its ships at the lowest cost. It was the trade with the East which constituted the main factor, the Cape being merely a means to that end.

During the early part of the Company's rule at the Cape, the production was more or less equal to the annual consumption. There was a market for vegetables, fruit, grain, meat, wine and brandy. Brandy was to a certain extent used by the Company in its trade with the East. As a result of the market opportunities for vegetables, fruit, wine and brandy, the first settlements on the Cape Peninsula commenced agricultural operations largely on an intensive basis. A new country generally resorts to extensive agriculture, this being determined by the distance from markets, the necessity for enduring qualities in the products, slow transportation, lack of

capital and labour, abundance of land, etc. But the available market for the products of intensive agriculture determined the nature and form of the Liesbeek settlement. In the other settlements, however, extensive agriculture became the more usual thing. In the settlements of Stellenbosch and Drakenstein farming developed into a mixture of intensive agriculture (viticulture), extensive agriculture (grain), and stock farming.

So long as the production was no more than sufficient to balance the consumption, the colony was in a fairly prosperous condition. But when the supply began to surpass the demand and the Company did not adapt its commercial policy to the need of an expanding colony for new markets, stagnation set in, subsistence farming came in vogue as the farmer could not dispose of his surplus produce, stock farming represented the only means of obtaining a living, dispersion of the stock farmers took place and commercial isolation resulted, with dire consequences to the rural population and organisation in the interior.

In such various ways did economic forces exercise an influence on the process of settlement and the progress of colonisation at the Cape. They were of paramount importance and subordinated the other forces, physical, political and social.

Physical Forces.—Climatic conditions and natural resources were not such important considerations in the initial stages of colonisation. It was only when favourable economic conditions had developed that the colonists were enabled to take full advantage of the natural resources. The location of the settlements in the Western Province and of the loan places in the interior was indeed determined primarily by a conjuncture of physical forces, *e.g.*, fertile soil, adequate water supply, good pasturage, etc. The Liesbeek settlement was located along the Liesbeek, Stellenbosch along the Eerste River, Drakenstein and Wagenmakers Vallei along the Groot Berg River, and Waveren along the Klein Berg River, where the land was fertile and well watered; and the directions in which the stock farmers "trekked" were determined largely by the available water resources (rivers, streams, springs, etc.) and the conditions of the pasturage, whose scantiness was instrumental in speeding up the process of "trekking." But it was economic forces which prompted the establishment of those settlements and influenced the course of their development, and which gave rise to stock farming and the dispersion of the stock farmer.

Political Forces.—Political institutions also play an important part in the economic development of a country. Governments may encourage or fetter economic growth. The political institutions of the Cape, as a colony of the Dutch East India Company, were

extremely unfavourable for economic development. The government of the Cape was rendered subservient to the commercial interests of the Company, which were contrary to those of the colonists.

Adam Smith has asserted that "the government of an exclusive company of merchants is, perhaps, the worst of all governments for any country whatever," that trading companies seem to be incapable of considering themselves as sovereigns of the countries which they have conquered, that they "regard the character of the sovereign as but an appendix to that of the merchant, as something which ought to be made subservient to it, or by means of which they may be enabled to buy cheaper in India, and thereby to sell with a better profit in Europe."

The Dutch East India Company was granted a monopoly of the trade of the Netherlands "eastward of the Cape of Good Hope, or westward of the Straits of Magellan." Accordingly, as a monopolist, it aimed at devising an organisation and following a policy which would bring in the largest net profit, irrespective of the volume of trade or of the effects of a restriction of trade on its subjects. The interests of the colonists were not taken into consideration. As Adam Smith says, "such exclusive companies are nuisances in every respect, always more or less inconvenient to the countries in which they are established, and destructive to those which have the misfortune to fall under their government."

The Cape was governed by a Commander or Governor and a Council of Policy, subject to the authority of the Governor-General and Council of India at Batavia (in Java), which was the centre of the Company's settlements in the East. Supreme control was vested in the hands of 17 directors, known as the Assembly of Seventeen. The Cape was merely a dependency of the Council of India and was thus regarded of secondary importance. The main thing was the trade with the settlements in the East Indies, out of which as large a profit as possible was to be procured.

Under such conditions of governmental organisation, the progress of the Cape was very slow in comparison with those new colonies which had a more appropriate form of government, such as the American colonies. The French colony of Canada, which had also been under the government of an exclusive company, experienced the same slow progress as the Cape.

Social Forces.—Under this system of commercial government such social forces as religion and education did not have much scope to counteract the decivilising influence of isolation and lack of social intercourse.

In the inland districts the farmers were scattered at distances far apart from each other and quite isolated from the outer world. There was no system of education and very little opportunity for the attendance of church services. Churches were indeed established at Cape Town in 1655, Stellenbosch 1686, Drakenstein 1691, Tulbagh 1743, Zwartland and Swellendam 1745, and Graaff-Reinet 1792, but they could serve only a small portion of the farming population in the interior. It was left to the custom of family worship to maintain the principles as well as the forms of morality and civilisation amongst them.

Thus like the indifferent and unsympathetic attitude of the "commercial" government and the scantiness of the water resources and pastures in the interior, this lack of education and religious teaching served to accentuate the working of economic forces in the settlement and expansion of the Cape during the administration of the Dutch East India Company.

CHAPTER 3.

DEVELOPMENT OF AGRICULTURAL AND PASTORAL RESOURCES.

The development of the agricultural and pastoral resources of the Cape, under the rule of the Dutch East India Company, was influenced mainly by the economic forces outlined in the preceding chapter. Market and trade opportunities, in conjunction with the other economic forces (transportation, land tenure, capital, labour, etc.), determined the nature and extent of agriculture and stock farming. Those forms of agriculture were undertaken which were favoured by the climatic and other physical conditions and provided the necessities of life, or yielded products for which there was a market. In accordance with the economics of agriculture, the choice of product was in many cases decided, not by the particular suitability of the soil and climate, but by the available market opportunities and transport facilities.

The primary intention of the Company had been to establish merely a provision station at the Cape for the purpose of supplying fresh vegetables and meat to its ships sailing between Holland and the East. And even after the transition from a mere refreshment station to an agricultural and pastoral colony had taken place, the Company retained its old policy and failed to adapt its methods to the requirements of an expanding colony. Its main aim was to use the Cape as a means whereby its trading profits could be increased, *i.e.*, its profits on the trade with the East. The interests of the colonists were not taken into due consideration. Restrictions were imposed on trade and industry, which meant that the market for agricultural and pastoral produce was practically limited to the ships calling at Table Bay for provisions, the Company's employees, and a small number of craftsmen and traders. There was very little foreign trade. Thus there was a demand only for the more important foodstuffs and drinks, *viz.*, vegetables, fruit, grain, meat, wine and brandy, to the limited extent of the local market and the insignificant export trade.

As a result of the lack of markets and transport facilities and the fixing of prices by the Company, the development of agriculture and stock farming was considerably retarded. There was no inducement to the farmer to produce a surplus, as he would not be able to sell much of that surplus. It was only the farmers in the vicinity of Cape Town who could find a market for their

surplus produce. The outcome was that, beyond the vicinity of the capital, subsistence farming was commonly practised and farms became more or less self-sufficing economic units. Consequently, at no time during the administration of the Company, were the agricultural and pastoral resources of the Cape exploited to anywhere near their full capacity.

AGRICULTURAL PURSUITS.

(1) *Vegetables and Fruit*.—Vegetable gardens were laid out in Table Valley after the first fall of rain. Seed-beds were prepared by Hendrik Boom, the gardener, and the vegetable seeds which had been brought out from Holland were planted on the 1st May, 1652 (*i.e.*, 24 days after the landing of Van Riebeeck). By the 19th June, according to Van Riebeeck's diary, such vegetables as radishes, lettuce, cress, asparagus and sorrel were partaken of at table.

During the winter of 1652 there were many heavy storms, and so much rain fell that on several occasions the valley was quite flooded. The garden-beds which had been prepared for the growing of vegetables were washed away twice; but the gardeners set to work again and made new gardens. From time to time more land was cleared and prepared for horticultural purposes.

Van Riebeeck was very keen to increase the quantity as well as the variety of horticultural products grown in the Company's gardens at the Cape. In his letters to the Assembly of Seventeen and the Council of India he laid a great deal of stress on the suitability of the soil and climate for all kinds of vegetables and fruit. He asked for a larger variety of vegetable seeds and cuttings of fruit trees. Accordingly such vegetables as cabbages, turnips, carrots, beetroot, etc., were also grown at the Cape from 1653 onwards and were found to thrive very well; and from time to time new kinds of fruit trees were introduced, including orange, lemon, peach, apple, pear, cherry, and chestnut trees. Some of these were obtained from Holland and Batavia and others from the island of St. Helena.

By the end of Van Riebeeck's term of office (1662) the Company's gardens in Table Valley extended over an area of about twenty-one morgen and produced an abundance of a variety of vegetables. Some of the fruit trees had already begun to bear, but fruit was not yet obtainable to any great extent. Van Riebeeck had thus made a determined attempt to carry out the main intention of the Company, *viz.*, to make the Cape serve as a place of intermediate refreshment for its ships on the route to or from the East. Fresh and green vegetables were needed to counteract the ravages

of scurvy on board ship and so reduce the death-rate, which would again help to minimise the loss, delay and inconvenience ordinarily caused by the collapse of a large number of sailors. Van Riebeeck had succeeded in providing the ships with the vegetables needed ; and it was merely left to his successors to carry on the work and to expand or contract the production according to the requirements.

The Company had indeed at first undertaken to supply its ships with vegetables, as well as with grain and meat, by its own operations, but having found this to be expensive and unsatisfactory, it decided to encourage the settlement of free colonists on the land who were to produce the necessary provisions and sell to the Company at fixed prices, under the impression that it would be a more economical method of provisioning the ships. A beginning was made with colonisation in 1657, but it took many years before the colonists could produce sufficient vegetables for the Company's garrison and ships, besides providing for their own needs.

In the meantime the Company continued to cultivate its vegetable gardens, while the numbers and activities of the colonists were increased and new land was being cleared and brought under cultivation. By the end of the 17th century the colony had been developed to such an extent that the surplus produce of the farmers was well-nigh sufficient to provide for the needs of the Company. Accordingly, in 1695, the Company resolved to withdraw itself from agricultural and pastoral pursuits and to depend upon the colonists for the supply of vegetables and fruit, as also of grain and meat. Simon van der Stel was instructed to prepare the way for a gradual, not a sudden, release of the Company from all its enterprises.

The Company's vegetable gardens were subsequently converted into botanical gardens, or used by the governors and officials for their own households, sometimes even producing for sale to the ships in competition with the colonists.

The production of vegetables and fruit was limited to the local demand from the ships and the garrison. There were no industrial cities or towns to provide extensive markets for horticultural produce. According as the demand was increased by the growth of population or an increase in the number of soldiers and ships, the production advanced. For example, during the war between England and Holland (1780-84), a French fleet came to the Cape to defend it against the English, as France was allied with Holland at the time. The presence of the French military and naval forces in the colony for two years meant an increased demand for farm produce, and accordingly the production was increased so as to take advantage of the enhanced demand. When, however, peace

was declared between England and France in 1783, and between England and Holland in 1784, the French fleet took its departure and the demand suddenly contracted, to the obvious detriment of the farmers. Then, again, during the governorship of Van de Graaff (1785–91), a large number of soldiers were despatched to the Cape to strengthen the defence of the colony and to construct additional fortifications. Thereby the local market for farm produce was once more considerably widened and production encouraged. But when those troops were recalled in 1790 in the interests of economy, the market was narrowed again and production checked.

In this way the production of vegetables fluctuated according to changes in the size of the Company's civil and military establishment and in the number of ships calling at the Cape. At the end of the Company's rule the Cape was found to produce almost all the kinds of vegetables and fruit known to the civilised world at the time.

(2) *Cereals*.—During the first five years of the occupation of the Cape, Van Riebeeck made several attempts to grow cereals in Table Valley in the vicinity of the vegetable gardens, but without much success. The strong south-east winds severely damaged all crops which attained any considerable height above the ground, such as corn, barley, rye, oats, and peas. The country around Table Mountain, however, was found to contain well-sheltered fertile lands, suitable for the cultivation of cereals. Accordingly, from 1657 onwards, grants of land along the Liesbeek at Rondebosch were made to time-expired soldiers, sailors, and other servants of the Company. The land was to be cultivated for the production of corn, rye, barley, oats, and rice. These settlers were furnished by the Company with the necessary implements, seeds and livestock, on credit and at cost price, and in return they were to sell their surplus produce only to the Company and at fixed prices. Subsequently, on the arrival of Dutch, French and German immigrants, land was allotted to the new settlers at what are now known as Somerset West, Stellenbosch, Drakenstein, Paarl, French Hoek, Malmesbury, Wellington and Tulbagh.

In the initial stage of colonisation the production of grain was hampered by the difficult and cumbersome task of clearing the land for cultivation. According to Simon van der Stel the soil, which had never been cultivated before, was full of shrubs and roots which were so difficult to remove that a farmer could only make a good harvest after three or four years of work.

As a result of this difficulty of clearing and preparing the land for cultivation, in the absence of modern implements, the first

settlers had to endure a great deal of privation and hardship. On more than one occasion Van Riebeeek was confronted with the problem of relieving a famine, due to the fact that the Cape did not produce sufficient grain. Even at the end of his term of office it was reported that the colony did not produce one-half of the grain required for the subsistence of the inhabitants. He was obliged to call upon the Governor-General of India to provide the colony with rice, and frequently appropriated some of the rice in the holds of the Company's ships arriving from Batavia. He even sent expeditions to Madagascar to procure rice.

The scarcity of grain also troubled several of his successors until the end of the 17th century, when the production of grain was brought up to the level of the local consumption, including the needs of the ships. When Simon van der Stel arrived at the Cape in 1679 and found that the colony did not produce sufficient grain for the maintenance of its inhabitants, he made a determined attempt to encourage the production of cereals and render the colony self-supporting in that respect. In his instructions to his son, Willem Adriaan, who succeeded him at the Cape in 1699, he stated that the cultivation of corn had not yet been developed to such an extent that the population of the colony could always live entirely from its own production. In the years of bad harvests he had to call on Batavia for rice. In general, however, the supply had come to be equal to the demand by the end of the century, "in consequence of the extension of the land under cultivation and thanks to the efforts of the colonists."

Under Willem Adriaan van der Stel the tendency for the production of corn to outstrip the demand in good years, began to manifest itself clearly. Every year more and more land had been brought under cultivation and a larger quantity of grain produced, until the limit of local consumption was reached. The restrictions on foreign trade deprived the colonists of the opportunity of finding overseas markets and widening the scope for grain farming. Consequently, a period of stagnation in agriculture followed. The production of grain was checked by the lack of markets for surplus produce. This continued throughout the 18th century and led to a repetition of famines in bad years. Many farmers, having found by experience that they could not dispose of their surplus produce at satisfactory prices or even at all, adopted the custom of sowing only sufficient grain to meet the needs of their own family. If the crops turned out to be a failure in some districts, on account of unfavourable weather conditions, a deficiency in the supply of grain might easily be the result, as those farmers had not allowed for a surplus.

In his report De Mist stated that in 1786 corn had actually to be shipped to the Cape from the Netherlands, and that in 1792, during the visit of the Commissioners-General, there were not more than 1,600 or 1,700 muids¹ of corn in Cape Town, *i.e.*, 18 days' supply. This state of affairs he attributed to "the ill-conceived intentions and bad statesmanship of the Directors of the Dutch East India Company."

Under such conditions agricultural development was kept within narrow limits. According to De Mist the official estimate of the production of corn at the Cape in 1793 was placed at 129,597 muids, and of barley at 6,871 muids. He states, however, that these figures are not to be considered as in any way accurate, but merely as indicating to some extent the quantity of the products. Besides corn and barley the Cape also produced rye, oats, and buckwheat.

Under the Company's rule grain farming was confined almost entirely to the Western Province, which was at that time divided merely into two districts, known as the District of the Cape and the District of Stellenbosch. Of these two the District of the Cape, comprising the present Cape Division as well as a large portion of the Swartland (Malmesbury), was the more important grain producer, contributing 118,132 out of the 129,597.

In the 18th century grain farming at the Cape was conducted in an ultra-extensive manner, due to the abundance and cheapness of land, the use of slave-labour, and the scarcity of capital. For example, according to the statistics for 1745, 3,276 muids of corn were sown and 27,438 muids threshed, *i.e.*, about 8 muids threshed for each muid sown; and according to the statistics for 1793, 13,571 muids of corn were sown and only 129,597 threshed, *i.e.*, about 9½ muids threshed for each muid sown. The seed was sown broadcast and spread over a comparatively large area of land, which was cultivated with the assistance of a minimum of labour and capital. Moreover, the agricultural methods and implements used were of a very primitive nature and could be more economically applied on an extensive basis.

(3) *Viticulture*.—The first vines were introduced into the Cape in 1653, the year after the landing of Van Riebeeck, from the borders of the Rhine. When they were found to thrive in the sunshine of the Cape, more vines were brought into the colony in 1656, mainly from the Rhenish Provinces and France. Van Riebeeck devoted a great deal of attention to the culture of the vine. By 1659 already he had about 1,200 vines on his own estate. That was the first year in which wine was made at the Cape from the muscadel grape.

¹ 1 Muid = 5 bushels.

His successors were also interested in viticulture and encouraged the extension and development of that branch of agriculture. At first the colonists were not favourably inclined towards the culture of the vine, but subsequently they took to it eagerly. By 1688, according to the official statistics, the total number of vines planted in the vineyards of the colonists as well as of the Company and its officials was about 400,000.

The Huguenot settlers, who came mostly from the wine districts of France, adapted themselves naturally to the cultivation of the vine. They did not introduce the vine into the colony, as many have been led to think, but they certainly did give a substantial impetus to viticulture and did much to improve the quality of the wines produced, although in general the quality of the wine continued to be of an essentially low grade. The Huguenots were settled at Stellenbosch, Drakenstein, Paarl and French Hoek, where viticulture soon became a very important branch of agriculture. As in the case of the other branches of agriculture, there were frequent periods of overproduction of wine in the 18th century; and there are even cases on record of wine having been allowed to run to waste in Cape Town when the farmers, who had come all the way from Stellenbosch or Paarl, could not sell their wine and were not prepared to let their oxen drag the heavy wagon-loads back to the farm over the roadless veld.

Wine was one of the earliest exports of the Cape. The Company had made an exception to their policy of trade restrictions in the case of wine. In 1670 the colonists were authorised to send their surplus wine to Batavia for sale there, but, on account of the poor quality of the wine produced at the Cape, the export never assumed considerable dimensions. The export of wine to the East was encouraged by the Company, because it enabled them to dispense with the French product, and this was considered to be a national advantage according to the "mercantilist" ideas of the time. The Company also undertook to export wine on its own account to Java and Europe. The natural conditions at the Cape led to the production of a comparatively heavy and sweet type of wine. It was especially the sweet wines of Constantia which were exported and became famous in Europe about the middle of the 18th century.

Brandy was also made at the Cape, being one of the articles needed by the Company in its trade with the East Indies. It was a valuable article of commerce and was ordinarily obtained from France, through the port of La Rochelle. Hence, in order to dispense with the French brandy, the colonists were encouraged to make brandy for export to the East.

According to the official statistics, mentioned in the letters of the Cape Governors, the number of vines at the Cape advanced from 400,000 in 1688 to 1,500,000 in 1698 and almost 2 millions in 1708. By 1775 there were 6,809,000 vines and by 1795 over 7 millions. In the latter year the production of wine was about 6,000 leaguers.²

(4) *Other Forms of Agriculture*.—There were a few other forms of agriculture, such as the cultivation of tobacco, flax and hemp, but these were conducted on a very small scale and were of minor importance.

PASTORAL PURSUITS.

(1) *Cattle Farming*.—Large herds of horned cattle were in possession of the nomadic Hottentot tribes of the Cape at the time of its occupation by the Dutch East India Company. The ships of the principal maritime nations which had previously put in at Table Bay, had been able on several occasions to obtain cattle from the Hottentots by barter; and one of the main aims of the Company, in deciding to occupy the Cape, was to open up a barter trade with the Hottentots with a view to procuring cattle and supplying its ships with fresh meat.

In accordance with the instructions of the Company, Van Riebeeck sought by kindness and favours to gain the confidence and goodwill of the natives so as to carry on a profitable trade with them. It was not until October, 1652 (six months after the arrival of Van Riebeeck), that a pastoral Hottentot clan, known to themselves and their neighbours as the Goringhaiquas and to the Dutch as the Kaapmans, arrived at the Cape Peninsula with their herds of cattle for the purpose of using the pastures along the Liesbeek. Van Riebeeck succeeded in inducing them to barter some of their cattle for tobacco, pipes, copper wire, etc., and so came into possession of the initial herd of cattle. By the end of January, 1653, he had acquired a herd of 230 head of cattle and was thereby enabled to supply the ships of the Company with fresh meat. But, unfortunately, in October of that year he was deprived of all his cattle by a band of Hottentots, while divine service was being held in the fort.

However, Van Riebeeck set to work again and within a few years succeeded in acquiring once more a substantial herd of cattle. The neighbouring Hottentots (the Kaapmans) continued to cause him a great deal of trouble, either by plunder and theft of his cattle or refusal to barter their cattle for the usual media of exchange,

² 1 Leaguer = 127 gallons.

until 1660, when peace was concluded between the two parties after a brief period of hostilities. Some of the other Hottentot clans, such as the Chochoquas from the vicinity of Saldanha Bay and the Chainouquas from Tulbagh and Worcester, were more favourably disposed toward the new inhabitants and approached the settlement with a view to trading. In addition, Van Riebeeck sent out several exploring and trading expeditions into the interior with the object of buying cattle from the natives for the Company or inducing them to bring their cattle to the Company's station for barter. In these ways Van Riebeeck was able to secure sufficient cattle, not only for the needs of the Company's ships, officials and garrison, but also for those of the colonists who had been settled on the land from 1657 onwards. Each of the settlers was supplied by the Company with a certain number of cattle.

At first the Company's cattle grazed merely on the pastures in Table Valley, but as the herd increased from time to time, cattle posts were established at various points on the Cape Peninsula or even beyond the limits of the peninsula. After the war with the Hottentot Chief, Gonnema, in 1673, the Company, as well as the colonists, began to take up cattle-breeding as a specialty, as it had become very evident that the Hottentots could not be relied upon for a regular supply of cattle. The Company continued its pastoral pursuits until the end of the 17th century, when it decided to abandon its farming enterprises and to depend upon the colonists for the supply of the necessary provisions.

In the meantime, the colonists had made a great deal of progress with the breeding of cattle. They acquired their original herds of cattle in a variety of ways, by purchase from the Company or barter with the native pastoral clans or pillage and plunder committed at the expense of those natives. Every free burgher who settled on the land received from the Company, on credit, a small herd of cattle which were to serve not only as producers of meat but also as draught animals. In many cases the herds of the colonists were increased by barter with the natives, whether such was permitted or prohibited by the Company. At certain times the authorities gave their sanction to free trade between the colonists and the natives, whereas at other times trade with the natives in any form was prohibited. However, the prohibition was not effectively enforced by the authorities and, assisted by the wide extent of territory, the farmers were able to conduct an illicit barter trade with the natives. Moreover, pillage and plunder were sometimes resorted to when barter was not possible, either by the farmers themselves or by adventurers and deserters of the army who were to procure cattle for the farmers.

By the beginning of the 18th century cattle-farming had become a popular pursuit of the colonists at the Cape. The number of the cattle in the possession of the colonists had increased rapidly, from 278 at the end of 1658 to 6,441 in 1696 and 14,320 in 1708. During this period cattle-farming was carried on in conjunction with agriculture, but from now on, as a result of the influence of economic forces, it assumed the form of an independent enterprise on the other side of the mountain ranges and became the characteristic type of farming in the interior. The breeding of cattle gained more and more importance as the number of the colonists increased and as they moved deeper into the interior where, along with sheep-farming, it represented almost the sole means of subsistence; and, moreover, oxen were the only means of transport available in the colony.

By 1793, according to the official lists, there were 82,110 head of cattle in the colony, viz., 6,570 in the district of the Cape, 22,155 in the district of Stellenbosch, 18,462 and 34,923 in the districts of Swellendam and Graaff-Reinet respectively (as constituted at that time). There were thus reported to be many more cattle in the districts which were only occupied in the course of the 18th century than in those which were already begun to be settled during the second half of the 17th century.

In this way the cattle industry of South Africa was set on foot by the Dutch East India Company and developed to a certain extent by the colonists under its régime. Some improvement was made by the Company in the native breed of cattle at the Cape by importations from Holland and Great Britain, but the "Afrikander" cattle, as they came to be known, remained the predominant type, especially in the interior. The "Afrikander" type is the type that was created by the colonists out of the native breed. The cattle which were found in the possession of the Hottentots along the coast in the south and south-east, where the vegetation was more luxuriant, were in general superior to those in the dry districts of the north and west, which were described as "gaunt, bony creatures, with immense horns and long legs." The former were found to be far more suitable as draught animals than the latter, and this became the decisive factor in view of the fact that cattle had to be relied upon for the transport services of the colony.

Cattle came to be bred chiefly for draught purposes, as oxen were required to drag the heavy wagon-loads over beaten tracks and rugged mountains and through deep gorges. The early stock-farmers took a great pride in possessing spans, or teams, of oxen as nearly alike in colour and appearance as possible. This naturally

led to selection by means of the colour test, and as dark red would appear to have been the favourite colour, the pure-bred Afrikaner cattle have come to be nearly all of varying shades of red in colour.³ In this way a distinct type of cattle was evolved in South Africa, in view of the necessity of breeding and selecting cattle primarily for draught purposes rather than the production of beef or milk. The latter were only secondary considerations.

In the interior the Afrikaner type was the more common type of cattle, but in the districts of the Cape and Stellenbosch the influence of the imported breeds was more marked. The character of the cattle, or a description of the animals imported, is not given, but it is most probable from the close connection of the Company with Holland, that the majority were of the improved Dutch breed, now known as the Friesland or Holstein. There seems to be little doubt that the foundation stock of the improved breed of cattle formed at the Cape were Frieslands. The majority of the so-called Cape cows—i.e., cows bred in the Western Province—still bear strongly-marked Friesland characteristics.

The Cape cow must have greatly improved in milking qualities during the first century of the Dutch occupation, for the records show that an average of 22,322 pounds of butter were exported to the Indies for a period of 18 years, commencing in 1754.

(2) *Sheep-Farming*.—Large flocks of sheep were also found in possession of the Hottentots at the Cape at the time of its occupation. The native breed of sheep, known as the "Afrikaner" sheep and still bred to a large extent in South Africa, was "a light, somewhat leggy animal covered with hair of varying hue and having a broad tail, composed principally of fat and varying in weight from six to over ten pounds."

The Company acquired its flocks of sheep in the same way as its herds of cattle, by inducing the Hottentots to barter their sheep for tobacco, pipes, copper plates, brass wire, beads, brandy, etc., and established sheep-folds on the Cape Peninsula, Robben Island, Saldanha Bay, and Hottentots Holland. The number of sheep in those folds, from time to time, depended on the needs of the ships and the garrison and on the extent to which breeding and bartering were carried on. At the end of the 17th century the Company abandoned its sheep-farming enterprises and looked to the colonists for the supply of the mutton required.

In order to improve the native sheep, rams and ewes from the best flocks in Holland were imported by the Company. In May, 1657, for example, the "Oyevaar" arrived in Table Bay with two

³ There was a local tax on black cattle in the country districts of the Cape which might also have helped to eliminate black cattle.

rams and six ewes from the best breed of Zeeland. In 1689 and 1724, also, a number of Spanish Merino sheep were introduced at the Cape. But in spite of the Company's efforts to encourage the production of wool as an industry, very little progress was made with the breeding of woolled sheep, as the farmers preferred the hardy fat-tailed Afrikander sheep to the delicate Merino. Under the circumstances prevailing in the colony in the 17th and 18th centuries, the farmers did not take to the woolled sheep on the ground that the meat and fat of the native hairy sheep could not be compensated for by the wool of the Merino, some of which proved to be of such inferior quality as to be unsaleable in Europe. Moreover, the lack of transportation facilities and the need of greater care and attention in the case of the Merino sheep helped to obstruct the development of wool-growing.

Further attempts were made, in the course of the 18th century, to introduce Spanish woolled sheep into the colony. In 1790 a number of Merino sheep were introduced by Colonel Gordon, an officer in the Company's service. These were of the Escorial breed and had been presented by the King of Spain to the Government of Holland. Some of these were distributed amongst the Cape farmers and crossed with the Afrikander sheep. Other importations were also made in 1793 or thereabouts, but with as little success as the former. Throughout the period of the Company's rule at the Cape the breeding of woolled sheep was never undertaken seriously and confined to only a few individuals. But the breeding of the native hairy sheep was eagerly undertaken by the agriculturists in the Western Province as well as the stock farmers in the interior.

The colonists acquired their original flocks of sheep, as in the case of their herds of cattle, by purchase from the Company or direct from the Hottentots or by occasional acts of rapacity and violence committed on the natives with a view to appropriating some of their sheep. The number of sheep in the hands of the colonists advanced from 348 at the end of 1658 to 89,553 in 1708 and 475,205 in 1793. Of the 475,205 sheep in the colony in 1793, no less than 281,195 were reported to be in the district of Graaff-Reinet, 111,217 in the district of Stellenbosch, and 63,212 and 19,581 in the districts of Swellendam and the Cape respectively.

(3) *Horse-Breeding*.—No horses were found at the Cape by the first settlers in 1652 as the horse was not indigenous to South Africa, but there were large numbers of two other members of the equine family, viz., the zebra and the quagga. The first horses were imported from Java in the early days of the settlement, and were the descendants of Arabian and Persian horses taken over to the

East Indies by Arabian traders during the 16th and 17th centuries. Only a few breeding animals were originally imported, so that at the end of 10 years there were only 44 horses (including foals) in the colony. By 1665 the Company had more horses than it required for its own purposes and began to sell the surplus stock to the colonists. In that year 16 of the Company's horses were disposed of at from £4 to £5 each to the colonists, who could now commence with the breeding of horses.

By 1688 the horses had increased in number to an appreciable extent, but had deteriorated considerably in character and appearance as the result of close in-and-in breeding, which was again due to the limited number of breeding animals originally at the disposal of the Company. In order to improve the breed, Simon van der Stel imported a number of Persian stallions in 1689. From this date the breeding of horses progressed very favourably until 1719, when horse-sickness appeared for the first time and carried off a large number of horses. In 1763 it reappeared and carried off about 2,500 horses. However, the number of horses at the Cape advanced steadily from 44 in 1662 to 1,586 in 1708 and 15,435 in 1793.

By 1769 the industry of horse-breeding had been developed to such an extent that Cape horses were exported to India to serve as remounts. This proved to be a remunerative trade and was continued by the Company. The Cape horse became famous in India and Egypt, and subsequently in the Crimea.

From time to time breeding horses were imported from various other countries, such as South America in 1778, North America in 1782, and England also in 1782; but as those imported horses were mainly of the Arabian or Andalusian stock, Arabian blood was still predominant in the Cape horse at the end of the 18th century. It was described as "a strong hardy animal, deficient in size, substance and symmetry, but possessed of great powers of endurance."

(4) *Goat-Breeding*.—The common goat was also found in possession of the natives at the Cape, but it appears that the Hottentot tribes living in the vicinity of the Cape Peninsula had only a few of them. No mention of them was made until 1691, when it was reported that 220 goats were in the possession of the colonists. Subsequently they gradually increased in number, but were never of great importance under the Company.

(5) *Pig-Breeding*.—Pigs were likewise found at the Cape and taken up by the colonists, but were not bred on any considerable scale.

CHAPTER 4.

INTERNAL TRADE AND COMMERCIAL RELATIONS WITH THE NETHERLANDS AND THE EAST INDIES.

The conditions under which the domestic and foreign trade of the Cape was carried on, during the period under consideration (1652-1795) were determined by the nature of the government of the colony. The Cape was subject to a commercial government, the government of a trading company which aimed merely at securing the highest profits on its commercial transactions with the East. In pursuance of the original Charter granted by the Netherlands Government in 1602, the Company acquired a monopoly of the trade of the Netherlands "eastward of the Cape of Good Hope, or westward of the Straits of Magellan." This monopoly was rigidly exercised by the Company and applied to all its dependencies.

At the Cape the Company had made a determined attempt, from the very beginning of colonisation, to enforce and maintain its trade monopoly. While the Cape was no more than a refreshment station and all the inhabitants were in the service of the Company, there was no problem of the regulation of commercial relations. But when, in 1657, a beginning was made with the settlement of free burghers on the land, the Company took great care to impose such conditions on the colonists as to preserve for itself a virtual monopoly of the trade of the colony.

Trade Restrictions.—The restrictions and conditions imposed on the free burghers clearly indicated the purely commercial instincts of those who framed them. They were not permitted to sell their agricultural produce and live stock except to the Company and at prices to be fixed at the discretion of its officers. They were at liberty, however, to dispose of such of their surplus produce as the Company did not require, to the crews of foreign ships in the Bay ; but as they were not allowed to go on board those ships until three days after their arrival, when presumably all that was required had been purchased from the Company's stores, that concession did not offer much scope. Moreover, they were to purchase all their requirements from the Company's stores at the customary prices.

During the first year of colonisation (1657-8) the farmers were granted the privilege of trading with the natives for the purpose of purchasing breeding cattle and sheep, provided that the articles

employed in barter, such as tobacco, brass wire, copper plates, beads, brandy, ironmongery, etc., had been previously purchased from the Company, and that higher prices than those paid by the Company were not offered. But this privilege was withdrawn in May, 1658, on the ground that the competition of the farmers had raised the price of cattle, and trade with the natives was stringently prohibited.

Discontent amongst Colonists.—There was thus no freedom of trade. As a result of the restrictions and prohibitions, discontent was aroused already in the first year, and a petition, signed by all the free burghers, was submitted to Van Riebeeck. In the petition they stated that they did not work to be slaves of the Company nor to be ordered in their farming arrangements, and requested to be allowed to barter cattle freely from the Hottentots and also to go on board the ships in the Bay without being prosecuted by the authorities. In reply to this Van Riebeeck reminded them of the conditions on which they had been granted their discharge and settled on the land with the assistance of the Company, and characterised their actions as seditious and rebellious. In these and other ways he succeeded in reducing the colonists to subjection and due submission.

The restrictions on trade were not always uniformly enforced by the authorities at the Cape. There were not infrequent occurrences of arbitrary application. In fact, those restrictions varied in intensity from time to time, according to the caprice of the Commander or Governor or other higher authority of the Company. As formulated by the Company's authorities in Holland, the policy of the Company, with reference to its colony at the Cape, was wholly unfavourable for the economic development of that colony. They did not seem to be able or willing to devise a colonial policy which would aim at securing a reconciliation of the interests of the Company as a trading association with those of the colony. The Company's policy, with regard to the trade of the colony, was almost diametrically opposed to the interests of the colonists. But that policy was sometimes rendered more detrimental by being administered with injustice and oppression by the authorities at the Cape, although as a general rule it was not strictly enforced and was systematically evaded in a variety of ways in the 18th century.

Abuses of Adriaan van der Stel.—Under Simon van der Stel the colonists were remarkably peaceful and industrious, but his son and successor, Adriaan van der Stel, abused the privileges of his position in such a manner as to create considerable discontent in the colony. The colonists complained that their privileges were narrowed down and the restrictions were rigidly enforced. The Governors and the leading officials of the Company had all along supplemented their small incomes by engaging in private trade. Grants of land had

been acquired by them, legally or illegally, for the purpose of agriculture and stock farming, and they could dispose of their produce in competition with the burghers. In this way Governor Adriaan van der Stel had come into possession of a large farm at Hottentots Holland, on which agricultural operations were conducted on a large scale. Vegetables, fruit, grain and wine were produced on his farm in large quantities. Moreover, he had several cattle farms on which thousands of cattle and sheep were grazing. Several of the other officials were also engaged in farming enterprises and trading on their own account.

The competition of Van der Stel and his subordinates for the limited market of the Cape was a source of discontent in itself, but it was accentuated by the abuse of their authority. In the first place, a large number of the Company's servants and slaves were employed on their estates for their own private interests. Secondly, they took advantage of their position to secure a market for their produce before the colonists were given an opportunity of disposing of theirs. In view of the limited scope of the local market, the produce from the farms of the Company's officials was almost sufficient to satisfy the demand, thus leaving a very small outlet for the produce of the colonists.

In the petition, which was submitted to the Company by a large number of farmers, it was complained that they were subjected to the ruinous competition of the Governor and other officials, that the Governor furnished the Company's stores with large quantities of wheat at higher prices than he paid the farmers, that they had to deliver their wine at 10 or 20 rix-dollars per leaguer whereas he sold it to the ships in the Bay at 150 rds., etc. With a view to removing the discontent and restoring tranquillity, Van der Stel and the other officials were recalled in 1707, and lands owned or leased by officers of the Company were ordered to be disposed of. In addition, officials were forbidden in future to possess any land other than a small garden plot, or to trade in any farm produce.

However, no change was made in the policy of the Company, which was avowed to be the enrichment of itself and not of the colonists. During the remaining period of the Company's rule there was a continuous but vain struggle on the part of the colonists to obtain some relaxation of the capricious and oppressive enactments of the Government, which not only excluded them from participation in foreign trade but hampered them in all their internal commercial transactions.

Petition for Free Trade.—In 1719, for example, the authorities were beseeched to grant the colonists a much-needed concession in respect of trade, viz., free trade along the coast and to Sofala,

Mozambique, Madagascar, etc. It was urged that, by means of such a trade, the corn, wine and other produce raised in the colony would be sold with greater profit and convenience, that the coast trade would lead to an increased demand for the merchandise of the Company and consequently enhance its income, and that many of the poorer classes would find a living in the various occupations connected with navigation. In consideration of this concession they were prepared to pay import and export duties.

Influence of Foreign Ships.—These representations of the colonists, however, did not meet with a favourable response, since foreign trade in any form, except in its own hands, was not countenanced by the Company. They were merely allowed to sell their surplus produce, after all the wants of the Company were supplied, to foreign ships in port; and even this limited trade was subject to the payment of a small duty in the form of a fee or perquisite to the Fiscal. This privilege gave some impetus to production on the occasional arrival of foreign ships in large numbers, such as the French and English fleets, which put into Table Bay on several occasions during the 18th century.

France and England were contending for supremacy on the seas and the possession of foreign colonies, and the Cape reaped the benefit of the colonial rivalry between those two countries. Both had colonial possessions in the East, and consequently with every important war, which had a colonial aspect, French and English ships called at the Cape on their way to India to protect their respective colonies or acquire new colonies, even at one another's expense.

On such occasions the demand for farm produce at the Cape was substantially increased, and the colonists took advantage of the opportunity to sell their surplus produce and improve their conditions. Prosperity then took the place of poverty and distress. If there was any likelihood of the enhanced demand being continued for a long period, the farmers would increase their production accordingly. At times the demand was even more than sufficient to balance the supply, when the prices of foodstuffs and drinks advanced due to the competition of the foreign ships, and the Company attempted to enforce the delivery of produce at fixed prices with the aid of penalties. In 1723, for example, it was ordered that no fresh meat and vegetables were to be sold to foreign ships, and no cabbages were to be pickled for exportation to India. All provisions were to be reserved for local consumption and the needs of the Company's ships; and drastic measures were taken against those who contravened this regulation.

In general, however, when foreign ships did not frequent the Cape in large numbers or for any length of time, the colonists keenly felt the want of a market and were reduced to an impoverished state by the absence of such an outlet. The Company refused to adapt its policy to the requirements of the colony, and so the Cape had to endure all the iniquities of an unwieldy and unsympathetic commercial government which, to use the words of De Mist, "regards its colonists as those who use a mail route regard the inn-keeper, in whose stables their postillions refresh themselves and their horses."

Deputations to Holland (1779 and 1785).—During the last quarter of the 18th century the colonists renewed their protests against the restrictions on trade. In 1779 they sent a deputation to Holland with a list of accusations against Governor van Plettenberg and other officials of the Company, and a petition for redress of their grievances. They charged the officials with various acts of oppression and corruption, and complained of the arbitrary power exercised by the Governor and the Independent Fiscal. The Assembly of Seventeen was humbly solicited to grant them the privilege of selling their produce to foreign ships without restraint and without payment of fees to the Fiscal, and to allow them to conduct even a limited foreign trade on their own account with a view to procuring merchandise and wares from other countries in return for their surplus produce.

After the lapse of several years, regulations were promulgated to check the abuses, on the part of officials, which had been complained of; but, with regard to the solicitation for commercial privileges, the colonists were reminded that they had been only permitted "as a matter of grace to have a residence in the land" and "gain a livelihood as tillers of the earth," and that the colony was brought into being not for their commercial advantage, but for the welfare of the Company.¹

The discontent amongst the colonists continued, as there had been little or no redress of grievances, and in 1785 delegates were again despatched to Holland to appeal once more to the Directors of the

¹ In connection with the request of the colonists for "the rights of trading beyond the colony, in ships freighted by them, to Europe, to the African coast, to India, to barter the produce of other lands for that of this country," a clear exposition of the colonial policy of the Company was given by the Fiscal Boers (one of the officials at the Cape), to whom the petition was referred for report, viz., that "for the purpose of enabling a subordinate colony to flourish as a colony, it is not always expedient to apply those means which, considered in the abstract, might be conducive to its prosperity," since "the object of paramount importance in legislating for colonies should be the welfare of the parent state, of which such a colony is but a subordinate part, and to which it owes its existence."

Company, and, failing redress, to approach the Dutch Government. But the Company was firm in its refusal to grant freedom of trade, with the exception that, in 1789, the wine farmers were allowed to export their wine to the Netherlands, on the condition that it was transported in the Company's ships.

Commissioners-General at the Cape (1792-93).—At this time the Company was getting into serious financial difficulties, and complaints were made of misgovernment and oppression in some of the other possessions of the Company as well. Accordingly, two Commissioners were appointed by the Stadtholder of the Netherlands to inquire into the affairs of all their settlements and rectify the abuses. For nearly a year (1792-93) those Commissioners-General remained at the Cape, where they listened to complaints and endeavoured to effect such reforms as were within their power, *or as the Company's commercial system of government allowed.* By a Placaat of the Commissioners-General of November, 1792, the colonists at the Cape were permitted to sail and trade along the coast of Africa, "as far as the 30th degree South Latitude," and in the Indian Ocean, as far as the Island of Java and the Strait of Malacca, but not including "the stations and posts belonging to the Company situated on the Island of Java." Trade to and from the Netherlands was only allowed at times when the ships used for this private commerce had to be sent there to be thoroughly overhauled. But the colonists were forbidden to export their produce in foreign ships or to buy from foreign ships.

The Commissioners-General had thus made an attempt to effect a compromise between the interests of the Company and those of the colonists. The privileges of coasting and foreign trade granted by them to the colonists, were defined and limited in such a way as not to be detrimental to the Company's commercial interests. If those concessions had been made by the Company from the very beginning of colonisation, the economic conditions of the Cape at the end of the 18th century would probably have been much more satisfactory. In spite of the limitations there would have been considerably more scope for the development of the agricultural resources of the colony, with the result that the population would have been larger and, in addition, more closely settled. More immigrants would have been attracted to the Cape by the prospects of earning an independent living there, and the settlers would not have been so widely scattered and dispersed as was the case. The settlement of the country would then have proceeded in more or less the same way as in America.

Exports in 1793 and 1795.—The following products were exported from the Cape in 1793: 9,475 muids of corn, 190 muids of rye,

632 leaguers of wine, 88 aums² of sweet Constantia wine, 39,355 lbs. of butter, 416 lbs. of ivory, also beans, peas, groats, etc. According to the inventory of the cargo of a private ship bound from the Cape to Holland in April, 1795, such products as hides, buckskins, sheepskins, seal skins, whale oil, spermaceti, aloë, some elephants' tusks and a little wool were also exported from the colony.

Goods required from the Netherlands and the East Indies.—On the other hand, the following articles were requisitioned from the Netherlands in 1792 and allowed to be imported in private ships by the Commissioners-General: all kinds of iron, steel, tin, lead, and copper materials; agricultural implements; tools used in the various industries and trades; household furniture; casks; sails, ropes, rigging, tarpaulins, anchors, and other kinds of ships' goods; mill- and grind-stones; clothing, hats, stockings, threads, sheets; glassware; brushware; paper, pens and other writing materials, etc. And from the Indies such goods were required as spices, pepper, calicoes, cotton thread, coffee, tea, sugar, rice, indigo, porcelain, etc.

The foregoing is quite sufficient to indicate (1) the numerous requirements of the colonists which could not be produced or manufactured in the colony at that stage of its development, but had to be imported from abroad. and (2) the many varieties of commodities which could be exported in order to procure those requisites of a civilised existence and material progress. Like all other colonies, the Cape was largely dependent upon imported goods for the satisfaction of its wants, and the most important way of paying for imports is generally by means of exports; but as the colonists were, with exception of the last three years of the Company's rule (1792-5), practically debarred from foreign trade, they were deprived of the principal means of obtaining the articles and implements necessary for the maintenance of a high standard of production and consumption, or, in other words, a high standard of living. The result was that, when the Commissioners-General arrived at the Cape in 1792, they found the majority of the colonists in the interior living under primitive conditions, with hardly any conveniences and comforts. And even many of those in the vicinity of Cape Town were found to be "financially ruined and not in a position to recover themselves."

Monopoly of Foreign Trade and Evasion.—In view of the fact that the Company reserved, or at least attempted to reserve, for itself a monopoly of the foreign trade of the colony and that the colonists were thereby deprived of the means of enriching them-

selves and raising their standard of living, they were under a strong inducement to evade the trade regulations and restrictions as far as possible. With very rare exceptions, such as the limited privileges granted in 1789 and, more particularly, in 1792, the colonists were forbidden to export their produce or import goods on their own account. The Company claimed the sole right to have goods sent out of, or brought into, the colony. From time to time such products as wheat, rye, beans, peas, wine, brandy, butter, etc., were exported by the Company from the Cape to its settlements in the East Indies, but only in relatively small quantities.³ As early as 1699, 1702 and 1704 wheat and rye were sent to Batavia, or rye and beans to Colombo. Wine was exported even earlier than that to Europe and the Indies. In this way the Company used the Cape, to a certain extent, as a means of supplementing a deficiency in the food supply of its Indian settlements. In accordance with the regulations the colonists were to sell to the Company, at fixed prices, as much produce as it needed for its ships, garrison, officials, and settlements in the East.

Occasionally, also, produce was sent to the Netherlands from the Cape. According to De Mist, the Company made several attempts to relieve the colonists of their surplus produce, buying it from them at a fixed price and storing it in granaries until an opportunity came of shipping it overseas to the Netherlands. But this was a precarious method and depended solely upon the goodwill of the government. Moreover, official corruption gave rise to such serious frauds in the process of measuring and re-issuing this produce that the Company did not consider itself justified in continuing the custom.

On the other hand, the Company also undertook to bring into the colony, from the Netherlands and the East Indies, such goods as could not, or were not allowed to, be produced or manufactured in the colony. From the beginning the colonists were bound by the terms on which land was granted to them, to purchase their requirements from the Company's stores only.

Thus, the commercial relations of the Cape with the Netherlands and the East Indies were stringently regulated by the Company, and attempts were made to centre the whole foreign trade of the colony in the hands of the Company. But from an early stage the colonists found it possible to evade the restrictions and regulations in respect of trade, but of course not to such an extent as to neutralise the evil effects thereof. Those restrictions still served to

³ In 1765 the value of the total exports to Europe and the East Indies was placed at 89,389 guilders (about £7,500) in a despatch from the Cape to the Council.

repress industry and enterprise and to seriously retard the development of the colony.

Extent of Evasion.—The evasion of the monopolistic tendencies and regulations of the Company was performed not only by the colonists, but also by the officials. The extent to which evasion was carried out at the Cape may be deduced from the following characteristics :

(1) Proclamations were issued from time to time to prohibit smuggling and illicit trade of all kinds, and to impose severe penalties for non-observance thereof. The continual repetition of such proclamations, or “Placaats,” seems to indicate that the Company did not succeed in enforcing its monopoly of trade completely and was obliged to warn the colonists regarding the restrictions on trade, besides intensifying the punitive measures, at times when evasion tended to become more common. Moreover, in a report on the Cape, the Governor-General of Batavia stated that smuggling and illegal trading in the colony had grown to such an extent that there were no limits to those activities.

(2) The petitions and agitations, on the part of the colonists, in connection with the corruption and underhand methods of the officials, as well as the detailed instructions issued by Governor-General van Imhoff in 1743 for the regulation of their fees and perquisites, appear to show that the officials likewise contravened the regulations and evaded the Company's trade monopoly, for their own private gain.

(3) The imposition of a customs duty of 5 per cent. on all imported goods, not belonging to the Company, may be justifiably regarded as an acknowledgment, on the part of the Company, of the impracticability of prohibiting the importation of private goods.

(4) The fact that, after the introduction of paper money in 1782, metallic coins soon disappeared from circulation, shows that there must have been a good deal of private trade with the crews of passing ships, who would of course not accept paper rix-dollars in payment for their goods but demand “hard cash” until it was exhausted.

(5) The degree of evasion is further illustrated by the evidence that a large number of the Company's servants availed themselves of the privilege of having their salaries payable in Holland instead of in Cape Town, in view of the fact that, in Cape Town, they could sell at a premium the right to receive the amount of a certain salary at a certain date in Holland. This means that there must have been a considerable demand for the right to money in Holland, or, in other words, bills of exchange on Holland, and in general a

demand for foreign bills on a large scale comes mainly from importers. Those who imported goods privately on their own account, by way of smuggling or in some other manner, had to make payment to merchants abroad or the crews⁴ of passing ships, which could be accomplished either by paying in metallic coins to that amount, if available, or otherwise bills on Holland. In the case of payment to foreign merchants less risk and expense are generally involved in the latter mode of payment. Consequently, foreign bills are usually preferred and eagerly demanded by importers. The supply of such bills generally comes mainly from the exporters who have sold goods to merchants in foreign countries and therefore have a right to payment from those merchants in those countries. Such rights to money abroad are bought up by the importers at a price determined by the relation between the supply and the demand. If the demand for foreign bills exceeds the supply, *i.e.*, if larger payments are to be made to foreign countries than received from them, the price of such bills will be at a premium, *i.e.*, will be higher than the amount stated thereon.

Accordingly, the following conclusions can be drawn from the foregoing evidence : (a) that there was a demand for bills on Holland at the Cape ; (b) that this demand came primarily from those who imported or smuggled foreign goods into the colony ; (c) that the demand for foreign bills exceeded the supply, *i.e.*, that more was imported than exported ; and (d) that the colonists were more successful in evading the Company's monopoly of the import than the export trade, probably due to the greater bulk, in proportion to the value, of the Cape produce and, consequently, the greater difficulty of smuggling.

However, in spite of this partial evasion of the restrictions and the few trade privileges granted them, more particularly in 1792, the colonists were, throughout the period of the Company's rule, placed at a considerable disadvantage in their efforts for the betterment of their conditions and the development of the colony.

Monopoly of Trade with Natives and Evasion.—During the greater part of the Company's administration the colonists were forbidden to barter with the natives. With the exception of the few brief periods during which the cattle trade was thrown open to the free burghers, such as 1657-8, 1700-2, and 1705-27, the Company attempted to reserve for itself a monopoly of the trade with the natives, whether Hottentots or Kaffirs ; but it was no more successful

⁴ It is very likely that, especially after the drainage of metallic coins from the colony, the crews of ships readily accepted, in exchange for their goods, bills on Holland in the form of rights to draw the salaries of servants of the Company in Holland.

in exercising its monopoly of the native trade than of the foreign trade. The colonists were able to evade the law in view of the wide extent of the country and the difficulty of enforcing absolute prohibitions.

In 1658 the colonists were strictly forbidden to carry on trade with the natives in cattle, on the ground that the competition of the farmers had raised the price of cattle and spoiled the market for the Company. This prohibition was a perpetual source of annoyance to the colonists, and many of them felt themselves driven to evade it by smuggling. The frequency of the proclamations in restraint of illicit trade with the natives and the severity of the punitive measures provided for, may be taken as indices of the evasion. In October, 1697, for example, Simon van der Stel issued a proclamation, forbidding all private trade with the natives under penalty of public whipping, branding, banishment and confiscation of property. Evidence of such illicit trade may also be gathered from the letters of the Governors and the journals of the secretary of the Council of Policy.

Toward the end of the 17th century, when the Company decided to gradually abandon its farming enterprises, it also proposed to grant the colonists freedom of trade with the natives so as to enable them to acquire sufficient breeding cattle. But Simon van der Stel did not regard this proposal with favour, on the ground that there was danger of a collision with the natives arising from such trade. However, the Directors insisted on the measure being taken, and in February, 1700, under Adriaan van der Stel, the cattle trade was thrown open to the colonists. This privilege remained in force until October, 1702, when van der Stel withdrew it on account of acts of rapacity and violence committed on the natives by private trading parties. The colonists had sent trading expeditions into the interior for the purpose of bartering cattle and sheep from the natives, and those parties had sometimes resorted to pillage and plunder when barter had not been possible. In 1702, for example, a trading expedition had been organised in which 45 Europeans and 49 Hottentot servants had taken part, and by which several acts of violence had been committed, whereupon the privilege of free barter with the natives was withdrawn by the Governor.

However, the Directors insisted on its re-institution, which finally took place in March, 1705. This time it remained in force for 22 years, until 1727, when the colonists were once more prohibited from carrying on a cattle trade with the natives in view of the constant recurrence of the ill-treatment of natives and the plunder of their cattle. During the remainder of the Company's rule the prohibition of private trade with the natives was promulgated by

the authorities from time to time, but as the colonists moved deeper and deeper into the interior, out of the reach of the authorities, it was less and less effectively enforced. In large sections of the colony, especially along the border, evasion became the usual thing. As a result of the wide extent of the colony and the small military force at the disposal of the authorities, it was not within their power to restrain the illicit trade with the Hottentots and Kaffirs.

System of Monopolies and Monopoly Contracts.—In its commercial relations with the inhabitants of the colony the Company made use of a system of monopoly contracts. For the provisioning of its ships, garrison, and Indian settlements, the Company required a large supply of grain, vegetables, meat, wine, brandy, peas, beans, butter, dried fruit, dried and salted fish, etc. The monopoly of the trade in a particular commodity was leased to the individual who contracted to deliver the requisite supply of that commodity at the Company's stores at the lowest price. The contracts were generally given for a period of five years. Sometimes, as in the case of the purveyors of meat, the contract was rendered more alluring by a large grant of land, with a view to attracting applicants who might not otherwise have felt inclined for "such a difficult and complicated undertaking in a country where, owing to the lack of market places, the buying and assembling of the necessary slaughter-cattle are accompanied by a great deal of inconvenience and danger."

Such monopoly contracts enabled the Company to secure its supply of provisions with a minimum of inconvenience and trouble, and moreover served as a source of revenue, but to the colonists they were a source of great irritation. The monopolist contractors exercised their privileges in an arbitrary and autocratic manner to the detriment, as well as annoyance, of the colonists.

The system of monopolies was also applied to the trade between the inhabitants in Cape Town and those in the country districts, between the producers of foodstuffs, wine, brandy, etc., on the land and the consumers of those commodities in Cape Town. Monopolies were granted in the case of baking and the sale of bread in the capital, in consideration of a certain payment, as also in the case of the slaughtering of cattle and sheep and the sale of meat, the retailing of wine and brandy, and the brewing of beer. This gave rise to some anomalies, such as the case of the resident of Cape Town who had a farm in the vicinity of the capital but could not use his own flour for bread. He was bound by law to sell his corn to the monopolist, and the price which he received for it would not suffice to re-purchase half of it in bread. These private monopolies, however, were also evaded to a certain extent by the colonists.

In conclusion, it may be stated that the incidental effects⁵ of the colonial policy of the Dutch East India Company, as applied to the Cape in the 17th and 18th centuries, constitute one of the best illustrations of Adam Smith's statement that, of all forms of government, that of a privileged company is perhaps the worst for any colony. The development of the colony was held in check, to a considerable extent, and diverted from its normal course, with highly detrimental effects to the rural population and rural organisation, by the monopolisation of trade either in the hands of the Company in respect of foreign trade and trade with the natives, or in those of the contractors and concessionaires in respect of trade between the colonists and the Company or between the inhabitants in Cape Town and those in the country districts.

⁵ *c.f.*, the discussion of the effects of trade restrictions at the Cape on the process of settlement and the progress of colonisation—Chapter 2.

CHAPTER 5.

CURRENCY, BANKING, FINANCE, AND TAXATION.

Currency.—Prior to 1782 the currency of the Cape consisted solely of coins. The standard coin, as in the other Dutch colonies of that period, was the silver ducaton, with copper stuivers (or stivers) in subsidiary circulation. Various other Dutch coins were also brought into circulation from time to time, such as the three-guilder piece, the guilder, the rix-dollar, the skilling (or schelling), the zesthalf, and the double stuiver. But, in addition, there was a whole medley of foreign coins which were introduced into concurrent circulation with the Dutch coins by ships calling at the Cape on the route between Europe and the East. Of these the most important were the Spanish dollar (or real of eight or piastre), the Indian rupee, the German reichsthaler, French and English crowns, Russian roubles, etc. All of these, with the exception of the copper stuiver and double stuiver, were silver coins, as very little gold was used in commerce at the Cape. The only important gold coin was the Dutch ducat.

The circulation of such a variety of coins gave rise to the complicated problem of internal, as well as foreign, rates of exchange. In the absence of banks and exchange bureaux, where foreign money is nowadays exchanged for the standard money of the country and so kept out of circulation, the rates of exchange of those coins in circulation at the Cape were determined partly by their relative metallic values, depending upon the weight and fineness of the metal so far as that could be readily ascertained, and partly by the demand or preference for them in trade. Some coins were regarded with greater favour and faith concerning their integrity and metallic content, or were better known, than others, and were accordingly in larger demand.

Commercial transactions were conducted almost entirely by barter and by means of metallic coins. There were virtually no facilities for the use of credit, commercial paper or bills of exchange. During the early period of its occupation the Cape was in the stage of transition from "barter economy" to "money economy," *i.e.*, barter became less significant and money came to assume a more important rôle in trade. Barter remained the characteristic form of trade with the natives, but amongst the colonists money became the more usual medium of exchange. Throughout the 18th century

the Cape was primarily in the stage of "money economy." The amount of money in circulation, *i.e.*, of metallic coins and, after 1782, of paper money, represented the amount with which trade could be carried on. There were no commercial banks, and consequently there was no credit structure built up on a metallic reserve whereby the amount available for trade could have been multiplied several times. It was only in the beginning of the 19th century that the Cape began to pass through the transition from a "money economy" to a "credit economy."

Although, under the Company, the restrictions on trade had limited the volume of trade to such an extent as to minimise the real need of, and the scope for, a "credit economy," there was always more or less scarcity of money in the colony. The amount of money in circulation at any time depended on (1) the needs of the authorities at the Cape and the importation of money from Holland for the payment of the salaries of the Company's employees and other items of expenditure; (2) the number of the ships touching at the Cape and the extent of their purchases of colonial produce; and (3) the amount of the coins removed from circulation as the result of cash payments to the crews of ships from whom goods were purchased by the inhabitants of the colony, or as the result of the exportation of coins to Holland or Batavia by the Company's representatives or private individuals. According as the working of these factors was favourable or unfavourable to the colony, there was a larger or smaller supply of money, and conversely a smaller or larger demand for money from abroad. There were not infrequent complaints of a scarcity of money due to excessive drainage of coins from the colony, and that was again due to the fact that more goods were imported or smuggled into the colony than exported or sold to ships in the bay. When foreign ships called at the Cape in large numbers, trade was more active and more money came into circulation. On other occasions, again, money was relatively scarce.¹

On account of the comparative scarcity of money, in general, gold and silver coins circulated at the Cape at higher rates of exchange than in Holland, ranging between $9\frac{1}{4}$ and 20 per cent. For example, the silver ducaton, which was valued in Holland at 63

¹ It must be borne in mind that no coins were minted in the colony. Copper mines had indeed been discovered in Namaqualand, but owing to the lack of transportation facilities they were not developed. The Company had the right of coinage in its own settlements and did exercise that right in the Indian settlements. The coins of the Company bore the crowned lion of Holland and, on the obverse, the letters V.O.C. (Vereenigde Oost-indische Compagnie, *i.e.*, United East India Company). Many of these coins were in circulation at the Cape.

stuivers,² circulated at the Cape at the rate of 72 stuivers, even in spite of the resolution of the Council in 1767 to fix the value of the ducaton at 66 stuivers and to grade all other coins in accordance therewith. So much confusion was caused by the differences in the exchange value of coins, not only in comparison with the value of similar coins in Europe, but also other coins in the colony, that the Company felt itself obliged to take that step ; but it was not of much avail. Coins continued to circulate at the Cape out of proportion to their metallic value. After 1784 the three-guilder and guilder coins circulated at 72 and 24 stuivers respectively instead of at 60 and 20 stuivers, as in Holland, *i.e.*, at a premium of 20 per cent.

The stuiver served as the subsidiary unit in terms of which the value of all coins was expressed, and the other monetary units of the colony (the skilling, the guilder, and the rixdollar) bore a fixed relation to the stuiver, so that the value of all coins could be expressed in terms of any of the units. The skilling represented 6 stuivers, the Cape guilder³ 16 stuivers, and the Cape rixdollar⁴ 48 stuivers. The Cape guilder and the Cape rixdollar were merely moneys of account. They did not represent actual coins, but served only as fictitious monetary units with a view to securing fixed bases for commercial and financial transactions.

At first the Cape guilder of 16 stuivers assumed the rôle of the standard unit in all transactions. But according to the resolution of the Council of August, 1705, which was repeated in May, 1738, the Cape rixdollar of 48 stuivers was established as the standard unit, although the Cape guilder was retained in use in certain cases, *e.g.*, when leases were offered for sale, or payments made to the Company's servants, or when landed property was sold. The Cape rixdollar came to be used by the Company in calculating its revenue and expenditure, and generally in its cash transactions, by the Orphan Chamber, and by the inhabitants in their mutual transactions, with the exception of sales of immovable property.

In this way the Cape rixdollar became the standard monetary unit of the colony. Accounts were kept in rixdollars, skillings, and stuivers in the ratio of 6 stuivers to a skilling and 8 skillings to a rixdollar. Thus, an amount of 140 stuivers would be represented as 2 rixdollars, 7 skillings, and 2 stuivers, or rds. 2 7 2. The relation between the rixdollar and the various coins in circulation was ascertained by means of a calculation in stuivers. Generally

² As a subsidiary coin, in relation to English coinage, the stuiver was equivalent to one penny.

³ The Dutch guilder (also called the heavy guilder) circulated at the Cape at 20 stuivers, as in Holland, until 1784 when, according to proclamation, it was circulated at 24 stuivers.

⁴ The Dutch rixdollar circulated at the rate of 50 stuivers.

the ducaton and three-guilder coins circulated in the colony at the rate of 72 stuivers, *i.e.*, $1\frac{1}{2}$ rixdollars or 12 skillings; the Spanish dollar or real of eight and French or English crowns at 54 stuivers, *i.e.*, 1 rixdollar and 1 skilling; the German reichsthaler and Russian rouble at 48 stuivers, *i.e.*, 1 rd.; the Dutch and Zeeland rixdollars at 50 stuivers, *i.e.*, 1 rd. 2 st.; the Dutch guilder at 24 stuivers, *i.e.*, 4 skillings; the zesthalf at 6 stuivers, *i.e.*, 1 skilling.

Introduction of Paper Money in 1782.—In 1782, during the governorship of Van Plettenberg, paper money was issued for the first time at the Cape, in view of the fact that the war between England and Holland had rendered it impossible to import the usual supply of money for the support of the civil and military establishments. The rixdollar was adopted as the unit of the paper money and thereby given a tangible form, instead of being merely an imaginary unit. On the first occasion, in May, 1782, Governor Van Plettenberg issued only a small amount of paper money, *viz.*, 47,696 rds., which was increased to 159,607 rds. in June of that year; and as the arrival of money from Holland was still further delayed, he continued issuing paper money until 1784, when a consignment of three-guilders, guilders, zesthalven and double stuivers was received at the Cape.

During the two years (1782-84) an amount of 925, 220 rds. in paper money was brought into circulation, consisting of rixdollars, skillings, and of denominations as low as 2 stuivers. These notes were issued on no other security than the good faith of the Governor and the Company. A solemn promise was given that the paper money would be redeemed and exchanged for coins as soon as the usual supply arrived from Holland. The notes were not redeemed immediately after the conclusion of peace in 1784, as most of the metallic coins had been drained from the colony by cash payments for imported or smuggled goods, in spite of the prohibition of the exportation of gold or silver by proclamation in May, 1782, and December, 1783, and, moreover, as coins were sent from Holland in small quantities only, disappearing from circulation soon after they were brought into the colony.

However, the promise to redeem the paper money was almost entirely fulfilled between 1785 and 1789, when an amount of 825,905 rds. was exchanged for metallic money and bills on Holland, leaving only 99,315 rds. in circulation.

There seems to have been no noteworthy depreciation of this inconvertible paper money during the period from 1782 to 1789, which may be explained by the fact that, on account of the drainage of metallic money or the increase of trade resulting from the

presence of English and French ships in the bay or from the enlargement of the garrison and the improvement of the fortifications, there was not an excessive quantity of money in circulation. There was not more than sufficient money for the trade of the colony, and accordingly the value of the rixdollar unit was maintained at about 48 stuivers. It was only in cases where large sums of metallic money had to be paid to foreigners that paper money was exchanged for metallic money at a small discount, and that was of course due to the periodically greater demand for one form of money than another. When metallic money began to arrive in large quantities, the notes were redeemed from time to time. This helped still further to maintain the value of the paper money and to establish a precedent for later Governors to follow in cases of emergency, but with abuse and excess.

In 1792 recourse was again had to the issue of paper money, in view of the scarcity of money, to the extent of 100,685 rds., thereby bringing the total amount of paper money in circulation up to 200,000 rds. The scarcity of money had been brought about by (1) the redemption of large sums of paper money; (2) the exportation of coins; and (3) a decrease in the Company's expenditure at the Cape combined with an increase in the revenue.

Establishment of the Loan Bank in 1793.—In 1793 the first bank was established at the Cape, called the Loan Bank and also known as the Lombard Bank. This bank was instituted by the Commissioners-General "for the relief of the public and for the purpose of checking those usurious transactions which naturally accompany a currency insufficient for the commercial and home transactions of any society."

There was an acute scarcity of money in the colony, as metallic money had almost entirely disappeared from circulation in payment of foreign goods and as there was only an amount of 200,000 rds. in paper money in circulation. Moreover, the outbreak of war in Europe in 1793, when the French invaded the Netherlands, eliminated the possibility of importing the usual supply of money. The result was that prices declined, the value of property depreciated in terms of money, farmers could not pay their debts and could not borrow money for that purpose except at very high rates of interest, whereby many of them became involved in financial distress and ruin.

Accordingly, the Commissioners-General resolved to authorise further issues of paper money and to establish a loan bank, with a paper-money capital, for the relief of distress. A proclamation was issued, declaring one million rixdollars to be a circulation adequate for the trade of the colony and capable of maintaining

its full value if, from time to time, small payments were made in metallic coins to restore confidence in the paper-money.

An amount of 680,000 rds. in paper money was advanced, in several instalments, to form the capital of the Lombard or Loan Bank, which was placed under the direction of a president, two commissioners, a cashier, and a bookkeeper. The Bank was authorised to lend money at 5 per cent. on mortgage of lands, houses, gold, silver, jewels, merchandise, furniture, and other articles capable of keeping 18 months, and on perishable goods for 9, 6, or 3 months, or even less than that according to the discretion of the commissioners or directors. In the case of property situated in Cape Town, loans could be made to the extent of one-half of the assessed value of the property mortgaged, and with regard to property in the country districts, two-thirds of the value. On gold and silver advances could be made up to 85 per cent. of the value, and on jewels, merchandise, and other movable goods, 50 per cent. As collateral security two persons of substantial means were required to pledge themselves for the due repayment of the loan.

The Lombard or Loan Bank was, therefore, as its name indicates, purely a loan bank, which has been the first stage in the evolution of the banking institutions of almost all countries. The Bank exercised only the one function of lending money on the security of property, whether movable or immovable. It was partly a mortgage-bank, granting relatively short-time credit on landed property, and partly a pawn-bank, taking in custody jewels, gold and silver plate, and other articles as security for loans. The striking peculiarity was the fact that the capital of the Bank was obtained simply by the issue of inconvertible paper money, declared to be a legal tender in the colony and lent at 5 per cent. interest, of which 1 per cent. was to be devoted to the cost of administration and the remaining 4 per cent. to be paid into the Treasury as revenue.

The Bank, which was instituted during an emergency and contained the elements of an emergency measure, did indeed afford temporary relief to the farmers "from the assiduous attentions of their creditors and from their financial embarrassments"; but the ultimate result was the depreciation of the paper currency and the aggravation of the general distress. In addition to the issue of 680,000 rds. for the purposes of the Loan Bank, other issues of paper money were made from time to time until, at the end of the Company's rule in 1795, the amount of paper money in circulation was 1,291,276 rds. This forced increase in the supply of money, accompanied by a great deal of unrest and discontent amongst the colonists and by the slackening of trade due to the

war in Europe, brought about a decline in its value. According to reports and despatches the depreciation of the paper currency of the Cape, during the last two years of the Company's rule, varied from 20 to 50 per cent.

Finance.—The financial policy of the Company was to render the Cape as nearly self-supporting as possible. When the Cape was first allowed to develop into an agricultural and pastoral colony, by the granting of land in freehold and on loan tenure to discharged servants of the Company or immigrants from Holland and France, the aim of the Company was to enable the Cape to produce all the vegetables, grain, wine, brandy, and meat required for its ships and its Indian settlements, and to minimise the cost of obtaining those provisions. It was thought that, as a limited agricultural and pastoral colony, where the farmers were required to sell their surplus produce to the Company at stipulated prices and buy their requisites from the Company's store only, and in addition pay rents and taxes to the Company, the Cape would be less of a financial burden than if it remained a refreshment station, operated entirely by employees of the Company. In other words, the presumption was that the free burghers could deliver the requisite provisions to the Company at a lower cost than if produced by its own employees, and moreover that the additional cost of administration and defence of the colony would be more than compensated for by the revenue from the profits on the sale of merchandise to the colonists and from the rents and taxes.

The latter presumption, however, was not confirmed by experience. On the contrary, the cost of administration and defence increased out of proportion to the revenue from trading profits, rents and taxes. The colony expanded more rapidly and to a greater extent than the Company had originally intended, whereby the expenditure was considerably enhanced. The increase of expenditure, as a result of the expansion of territory and the growth of population, was further promoted by the extravagance of the officials who conducted affairs "without any regard to reason or economy." On the other hand, the revenue did not increase proportionally. As the expenditure advanced, new impositions were introduced, either in the form of rents or taxes, but on account of the slow economic progress of the colony and the poverty of a large number of the colonists, the lack of a proper system of collection of revenue, the evasion of taxes by the colonists and the corruption of the officials, the revenue was in general comparatively small. There were always deficits, sometimes of considerable dimensions too, in spite of the constant efforts of the Company to equalise revenue and expenditure.

During the period from 1757 to 1777 the revenue ranged from 150,000 to 200,000 guilders⁵ per annum, and the expenditure from 400,000 to 450,000, leaving an average annual deficit of *f*250,000 (about £20,000). After the war with England (1780-84) the Company became anxious to render the Cape strong enough to resist a foreign attack. With this end in view they resolved to despatch a large body of troops to the Cape and to construct additional fortifications. During the governorship of Van de Graaff (1785-91) several batteries were constructed and a few thousand soldiers were stationed at the Cape. In addition, Governor van de Graaff was guilty of reckless waste. The result was that the expenditure was subject to an exceptional increase, from *f*454,000 in 1777 to *f*1,586,000 in 1787 and *f*1,744,000 in 1789, whereas the revenue rose merely from about *f*200,000 in 1777 to *f*282,000 in 1787 and *f*341,000 in 1789, so that the deficit for several years exceeded a million guilders.

Accordingly, in 1790 the Company decided to reduce its expenditure at the Cape in all directions. The regiment of 2,000 soldiers was withdrawn from the Cape, all work upon fortifications was stopped, and Governor van de Graaff was recalled to Holland. In 1792 the Commissioners-General arrived in the colony and immediately took measures for the further reduction of expenditure as well as a proper assessment of the taxes. The expenditure was reduced from *f*1,744,000 in 1789 to *f*1,300,000 in 1791, *f*758,000 in 1792 and *f*818,000 in 1794 ; and the revenue was increased from *f*341,000 in 1789 to *f*416,000 in 1792 and *f*588,000 in 1794. In this way the annual deficit was considerably reduced, amounting to no more than *f*230,000 in 1794.

In the eyes of the Directors in Holland the settlement at the Cape was a distinct failure, in view of the burden imposed on the finances of the Company by the continuous series of deficits. But the burden is not to be measured by the total amount of the deficits. In the first place, certain items of expenditure were debited to the colony which, strictly speaking, did not pertain to it. For example, all regiments, whether they were used for the defence of the Cape or not, were usually stationed there for a time, until they had somewhat recuperated from the fatigue of the voyage ; and when they proceeded on their voyage to the Netherlands or the East Indies, the sick and convalescent men were left behind till a later date. The cost of maintaining such troops should not have been debited to the Cape. Secondly, the utility of the Cape,

⁵ Dutch guilders (*f*) of 20 stuivers (1s. 8d.), in accordance with an order of 1743 that the Dutch guilder was to be exclusively used in accounts prepared for the Directors.

as a place of intermediate refreshment, to the commercial activities of the Company should be taken into consideration. The Cape contributed to the profits of the Company on its Eastern trade by reducing the death-rate amongst the sailors, minimising delay in navigation, accelerating the turn-over, etc.

Analysis of Expenditure.—The expenditure of the Cape, as an outpost of the Company, consisted of four main divisions :

- (1) *The Civil and Judicial Establishment*, which in 1795 comprised about 700 European employees, drawing salaries and emoluments to an amount of £350,000.
- (2) *The Military Establishment*, which in 1795 comprised 613 infantrymen, 426 artillerymen, and 39 engineers, whose pay amounted to about £340,000. In some years, however, the military forces numbered two or three thousand.
- (3) *The Construction and Maintenance of Public Works and Buildings*, which varied considerably in extent from time to time.
- (4) *The Cost of Provisioning the Company's Ships*, which amounted to over £100,000.

Minor items of expenditure were the maintenance of the Company's slaves and ships permanently stationed at the Cape, the operation of sloops and smaller vessels in use in the bay, etc.

Analysis of Revenue.—The revenue may be classified into two groups :

- (1) *Commercial Revenue*, i.e., revenue accruing to the government in its capacity as a trader, a landlord, or a banker.
- (2) *Revenue from Taxation*.

Commercial Revenue: (a) Trading Profits.—The Company attempted to exercise a monopoly of the trade in foreign merchandise in the colony and to use it, as far as possible, as a source of revenue, as a means of reducing the burden of expenditure. The colonists were to buy all their requirements of foreign goods from the Company's store, even the articles of merchandise which they used in barter with the natives. In this way the Company hoped to draw a large revenue, but, on account of the wholesale evasion of the restrictions on trade and the corruption and fraud of the officials, the trading profits continued to be relatively small. In 1725 the amount was £102,000, in 1750 £131,000, and in 1794 £145,000. However, for a very long period this was the most important source of revenue at the Cape, and at first it was virtually the sole source of revenue. It was only as time went on and the

expenditure increased that other sources of revenue were tapped to a greater and greater extent.

(b) *Rents*.—In its capacity as a landlord, the Company received a fairly substantial revenue in the form of rent charges, from about the middle of the 18th century. At first land was given out largely in freehold, or in “full and free property,” but even when land was granted on loan tenure, *i.e.*, where the Company remained the owner of the land and merely leased it to the farmer for grazing purposes for a year at a time, no rent was charged for the use thereof. But as the population increased and more land became necessary for their support, while the cost of administration and defence was enhanced accordingly, such grants on loan tenure were made subject to the payment of rent. In July, 1714, the Council of Policy resolved that all occupiers of loan farms (also called loan places) were to pay, by way of “*recognition*” of the Company’s ownership of the land, an annual rent of 12 rds. In 1732, on account of the increase in expenditure, the rent of loan farms was raised to 24 rds. per annum, irrespective of the fertility or location of the land.⁶

In 1732, also, quitrent tenure was introduced, in accordance with which small areas of land could be leased for 15 years at a time on payment of an annual rent, varying from 4 to 6 skillings per morgen according to the fertility of the soil. And in 1743 loan freehold tenure was instituted, whereby a loan farm could be converted into a loan freehold farm of 60 morgen, held on perpetual loan, on payment of an annual rent of 24 rds. in addition to a consideration to be paid in respect of the more valuable farms and assessed by valuers upon delivery of the title deed.

Under these three forms of land tenure, *viz.*, loan, quitrent and loan freehold, the Company remained the landlord and received rents in consideration of its ownership. Loan tenure was the most productive of revenues, and this was one of the main reasons why it was retained by the Company as the most important form of land tenure in the interior throughout the 18th century. The loan lease was to be renewed annually and, according to law, the rent was to be paid every year on renewal of the lease, or else it was not granted and some other farmer might apply for the land. But in practice neglect to enforce regulations gave rise to a great deal of evasion.⁷ It depended largely on the way in which the authorities carried out the law. Sometimes there were good reasons which induced the

⁶ Later on, however, provision was made for a reduction of the rent to 12 rds., upon proper certificates being produced of a great inferiority of soil or want of water.

⁷ In 1795 the amount of arrear rents was stated to be 346,942 rds.

authorities to allow the non-payment or postponement of rent, such as bad harvests, cattle diseases, and raids by Hottentots, Bushmen or Kaffirs; but on other occasions no better reasons than laziness, idleness, or deceit seemed to satisfy them. The corruption of officials also served to reduce the legitimate revenue from this source. However, in spite of evasion and corruption, the rents from loan farms yielded an appreciable revenue, ranging from 50,000 to 100,000 guilders per annum during the last quarter of the 18th century.

Quitrent and loan freehold tenure did not bring in much revenue. In the case of quitrent tenure land was granted for a period of 15 years on payment of an annual rent of about 24 stuivers per morgen, but in practice the rent was paid only when the term of 15 years had expired and the lease had to be renewed. Moreover, this form of tenure did not appeal to many farmers, which was also the case with loan freehold tenure, mainly because it was limited to an area of about 60 morgen. Only 64 farmers were reported to have availed themselves of loan freehold tenure.

In 1786 it was also resolved to charge a small "recognition" rent for plots of land in Cape Town used for building purposes. Prior to that date such plots had been given away gratuitously.

(c) *Profits of the Lombard or Loan Bank.*—The loan bank, which was instituted in 1793, lent out inconvertible paper money at 5 per cent., 1 per cent. to cover the cost of administration and 4 per cent. to be paid into the Treasury as revenue. However, the bank was only in operation for two years when the Company's rule came to an end.

Revenue from Taxation.—The taxes may be divided into general (or national) and special (or local) taxes. The general taxes were levied and collected by the central government (Governor and Council of Policy) with a view to defraying the expenses incurred in connection with the general administration of the colony; and the special or local taxes were levied and collected by the local governments (landdrosts and heemraden) for the purpose of meeting the expenses incurred in connection with the special functions entrusted to them or undertaken by them.

General Taxes. (1) *Transfer Duty.*—As far back as 1686 a transfer duty was imposed on the purchase price of immovable property when sold and transferred to another. This tax was of two kinds:

- (a) A duty on the transfer of landed property held in freehold. This duty was introduced in view of the fact that several farmers sold the land which had been granted to them by the Company in full and free property, shortly after they

had received it. In order to discourage this, a transfer duty of 10 per cent. was to be paid if the land was sold within three years of the grant, 5 per cent. if within ten years, and $2\frac{1}{2}$ per cent. after ten years. This tax was known as the tenth, twentieth and fortieth. In 1793 it was abolished and a general duty of 4 per cent. was imposed.

- (b) A duty of $2\frac{1}{2}$ per cent. on the transfer of the "opstal" (*i.e.*, houses and other buildings) of a loan farm. The occupier of a loan farm had no right to sell the land, as it was not his property, but he could sell or bequeath the "opstal" on the farm. However, in many cases the "opstal" was sold for a larger sum than the real value of those buildings, and the Company tacitly acquiesced therein.

In 1794 the transfer duty yielded about f50,000.

(2) *Tithe*.—The tithe, *i.e.*, a tax of one-tenth of the grain harvested, passed through several stages during the period of the Company's administration. At first it was imposed only in some cases and not in others. Sometimes land was granted in freehold, subject to the payment of the tithe; and in other cases grants of land were not accompanied by the imposition of the tithe. Likewise in respect of loan tenure there was no uniformity till January, 1714, when it was resolved that all occupiers of loan farms were to pay tithes to the Company. The farmers were required to deliver one-tenth of the corn, barley, and rye harvested on their farms, at the store or granary of the Company with their own wagons and oxen. This was an extreme hardship on those who were situated in the outlying districts and produced just sufficient grain for the needs of the family. The result was evasion of the tithe, which could be easily accomplished by the loan farmers in the interior.

The final outcome was that the tithe was imposed merely on the grain brought into Cape Town, whether such was intended for sale to the ships in the bay or the Company's employees or private citizens. In 1790 peas and beans were also included in the list. In the case of grain delivered at Mossel Bay for shipment to Cape Town by the Company's vessels, a double tithe was imposed, one-tenth as the usual tithe and the other tenth in lieu of risk and freight.

The tithe yielded about f47,000 in 1794.

(3) *Duty on Wine and Brandy brought into Cape Town*.—This duty of 3 rds. per leaguer of wine or brandy brought into Cape Town for sale developed out of the tithe. It was at first attempted to impose a tithe on wine and brandy, as in the case of grain, but on account of the difficulties involved therein the so-called inland

duty of 3 rds. per leaguer was introduced as a more satisfactory and economical method of obtaining the revenue. The duty was to be paid in cash at the toll gate before the wine or brandy was allowed to be brought into the capital. It was an unjust tax, as it had no relation to the price or the quality of the wine or even the possibility of selling it.

The revenue from this duty amounted to about £30,000 or £35,000 per annum, during the last part of the 18th century.

(4) *Monopoly Leases*.—The Company derived quite a substantial revenue (£100,000 in 1794) from the leasing of monopoly privileges, the most important of which were the following :

- (a) the exclusive privilege of the retail trade in Cape wines, brandy, arack and other strong drinks, which was annually leased to four independent individuals, each of whom had a monopoly of the trade in his particular area, whether Cape Town, Rondebosch, False Bay, or Stellenbosch ;
- (b) the exclusive privilege of selling all kinds of liquor to foreign ships, in consideration of which a payment of 5 rds. had to be made for every leaguer of wine or brandy or arack delivered ;
- (c) the sole right of selling foreign wines and beer in the colony ;
- (d) the monopoly of brewing beer, which was assigned to one brewer only in consideration of a payment of 2 rds. for every barrel of beer brewed by him ;
- (e) the privilege of working the salt pans, which was granted to two individuals, the one to exploit the salt pans on the Cape Flats and the other those at Groenekloof.

(5) *Customs Duties*.—The evolution of a regular customs tariff at the Cape was the result of the evasion of the Company's trade monopoly in the colony. The intention of the Company had been to monopolise the sale of merchandise to the colonists, on the presumption that in this way a larger revenue could be procured than by allowing freedom of trade and levying customs duties on imported goods. But in view of the evasion which was practised at an early stage already, it was resolved in 1678 to impose duties upon all articles brought into the colony by the ships' crews and offered there for private sale. In order to stimulate the Fiscal to exert himself in carrying out the law and encumbering the importation of private goods, he was permitted to levy those duties for his own benefit. He came to regard the revenue from import duties as a legitimate perquisite of his office. This was also the case with the fees which were levied by the Fiscal, for his own account, on all produce sold to foreign ships.

This state of affairs continued till 1789 when, according to a resolution of the Council of Seventeen, a duty of 5 per cent. was to be levied on all goods imported or exported, except by the Company, and the duty was henceforth to be levied for the benefit of the Company and not of the Fiscal. But the latter continued to collect the money as if it was a perquisite of his office. In 1793, however, the Commissioners-General reiterated the imposition of the duty of 5 per cent. on imports and exports, besides introducing a duty of 10 rds. on every slave imported into the colony, and ordered the revenue to be paid into the general treasury. In 1794 the revenue from the import and export duties amounted to f38,000.

(6) *Stamp Duties*.—Stamp duties were payable on all documents and transactions which took place in the colony, yielding a revenue of about f36,000 in 1794. There was a good deal of corruption in connection with these duties. For instance, the stamps on the licences for baking were to be paid every year on renewal, but they were frequently omitted or old stamps used over and over again by the officials and clerks.

(7) *Auction Duties*.—These duties were introduced by the Commissioners-General in 1793 and were levied on goods sold at public auction: $3\frac{1}{2}$ per cent. on movables and $1\frac{3}{4}$ per cent. on immovables. The revenue was about f24,000.

(8) *Miscellaneous Taxes* instituted by the Commissioners-General: (a) *tax on the leading officials*, such as the Governor, the members of the Council of Policy, the Fiscal, etc., who had to deposit one-fourth of their total income, legal or illegal, in a secret box; (b) *carriage tax*, and (c) a tax which was imposed on foreign ships for the use of the jetty and the water cranes.

Special or Local Taxes.—There were three varieties of local taxation at the Cape during the period of the Company's administration, viz., a poll or capitation tax, a house tax, and a tax on sheep and black cattle. At the end of that period there were four local divisions or districts, viz., the Cape District (including Cape Town) and the Districts of Stellenbosch, Swellendam and Graaff-Reinet.

(1) *Poll Tax*.—The poll tax was levied in the districts of the Cape, Stellenbosch and Swellendam. It was not regulated by law but was left to the discretion of the landdrosts and heemraden. In the Cape District it was known as Lion and Tiger Money, as it was originally levied for the purpose of obtaining revenue in order to pay premiums for the killing of lions, tigers and other wild beasts. As such it was the oldest tax of the colony. In the Districts of Stellenbosch and Swellendam it was known as Head Money,

i.e., the money which each head of the population was to contribute toward the expenses of the local government.

In Cape Town and the Cape District a distinction was made between those who had property and those who had not. Those who had no property were liable to a uniform tax of 32 stuivers per annum, whereas those who had property were taxed according to their means, according to their ability. But what was the criterion of ability adopted by the authorities? According to the burgher council the tax was levied in proportion to the property and income of each individual, but the way in which the calculation or assessment was made and the proportion which the amount of the tax bore to the amount of each person's property and income were known only to the individual members of the burgher council. As a result of such arbitrary and discretionary methods of assessment there was a good deal of disparity, disproportion and inequality.

At Stellenbosch and Swellendam the poll tax was applicable only to those who did not possess any sheep and cattle, and amounted to 32 stuivers per head in the former and 36 stuivers in the latter district. Exemption was granted in the case of those who were under 16 years of age. Those who had sheep or cattle were liable to the tax on sheep and black cattle, which was regarded to include the head money.

(2) *House Tax*.—The house tax was levied only in Cape Town. It was known as *Hearth Money* and was also called *Watch Tax*, as it was originated for the purpose of defraying the expense of guarding the town. Originally this tax of 4 rds. per annum was paid only for dwelling houses, but subsequently it was also applied to stores or packhouses.

(3) *Tax on Sheep and Black Cattle*.—This tax was levied in the three country districts of Stellenbosch, Swellendam and Graaff-Reinet. It was regulated by law and fixed at 1 stuiver for each head of black cattle and 16 stuivers for each group of 100 sheep. It was first introduced at Stellenbosch and then extended to the other country districts as they were formed from time to time. Sheep and cattle constituted the most conspicuous form of wealth at the time in those districts and were consequently adopted as a convenient basis of local taxation.

In general, under the Company, the taxes were levied in such an arbitrary, irregular, and careless manner that the yield of one year differed considerably from that of another, as a result of reckless omission, fraud, neglect, delay, evasion, and insolvency of taxpayers.

PART 2.

ECONOMIC DEVELOPMENT OF SOUTH AFRICA SINCE THE FIRST BRITISH OCCUPATION (1795).

CHAPTER I.

CHRONOLOGICAL SURVEY OF SOCIAL, POLITICAL AND ECONOMIC CONDITIONS (1795–1870).

The Cape under British Protection (1795–1803).—During the period from 1795 to 1803, when the Cape was held temporarily by the British Government as a possession by conquest, a considerable armed force was maintained at Cape Town and defensive works were constructed. There was a lavish expenditure of money on the part of the authorities. It was estimated that, during this period of about eight years, more than £1,500,000 was spent in the Colony, with the result that there was a good deal of prosperity amongst the colonists in the vicinity of Cape Town.

According to the terms of capitulation, the colonists were guaranteed the preservation of all the privileges which they had formerly enjoyed, and the protection of private property; and it was agreed that no new taxes should be introduced, that the existing taxes should be modified as much as possible in view of the unfavourable conditions of the Colony, that the paper money in circulation should be continued at its current value on the security of the Company's property taken over by the new Government, that the monopolies and the restrictions on the internal trade of the Colony, which had been in force for the benefit of the Company only, should be removed, that the internal trade should be entirely free and unrestricted, that every person might sell his produce to whom and in what manner he chose, as best suited his interests, that coastal navigation and trade should also be free, and that there should be no restraint in regard to the possession of boats or vessels of any sort by which the produce of any part of the Colony might be conveyed to a market.

Some of these promises, however, were not fulfilled, or could not be carried out under the circumstances of the time. Under the influence of "mercantilism" the Imperial Government likewise enforced a number of restrictions on trade and navigation,

although the colonists were on the whole granted greater opportunities than under the exclusive commercial policy of the Company. New taxes were imposed, such as the street tax in 1798, licences for keeping billiard tables, holding clubs or societies, and killing game, in 1800; and the inland duty on brandy was increased from 3 to 6 rds. per leaguer in 1800. Moreover, further issues of paper money were made to the extent of 495,000 rds., viz., 250,000 rds. in 1797 and 245,000 in 1802. On the other hand, a substantial improvement was the institution of free internal trade; and in general one may conclude that the colonial policy of Great Britain, as applied to the Cape, was reasonably liberal in comparison with that of other colonising nations at the time.

The British occupation of the Cape from 1795 to 1803 proved to be a troublous period. There were frequent disturbances in the district of Graaff-Reinet, and there was a good deal of trouble with the Kaffirs and Hottentots. The border colonists were occasionally exposed to the invasion of native hordes, when the farms in the frontier districts would be laid waste and the cattle plundered. Further, owing to the injudicious exportation of wheat, the Colony was more than once threatened with famine. As a result of these conditions and the non-fulfilment of some of the promises, there was a feeling of general disappointment amongst the colonists with regard to the British rule; and they rejoiced at the restoration of the Cape to the Netherlands by the Peace of Amiens in 1802 and the evacuation of the Colony by the English in the beginning of 1803.

The Cape under the Batavian Republic (1803-6).—Commissioner-General de Mist was despatched to the Cape by the Government of the Netherlands (known as the Batavian Republic at the time) to take over the Colony from the English, to instal General Janssens in the office of Governor, and to establish a new form of government which would be in accordance with the current principles and the requirements of the Colony. Several important reforms were introduced, such as the reorganisation of the civil government, the establishment of a new system of judicature, the appointment of a commission to carry out improvements in agriculture and the rearing of live stock, the removal of the restrictions on trade, and the establishment of government schools. These changes were highly beneficial to the general administration and development of the country.

Acting upon the principle "that the Colony must derive its importance from the quantity and quality of its produce," the land-

drosts were enjoined to devote special attention to the improvement of agriculture and stock farming, and especially to promote the substitution of the wool-bearing merino sheep for the native hairy sheep.

The Governor and the Commissioner-General also gave their attention to the condition of the frontier districts and sought to re-establish friendly relations between the natives and the colonists. Satisfactory treaties were concluded with the Kaffirs.

It seemed as if a new era had dawned upon the Colony. The Commissioner-General de Mist had devised several measures with a view to promoting the agricultural and commercial development of the Cape Colony, and Governor Janssens was sympathetically inclined towards the colonists and keen to apply those measures in practice. But the Governor was not destined to remain long in office, for in the meantime hostilities had been resumed between Great Britain and France, and the British Government had deemed it expedient to send out an expedition for the re-capture of the Cape, in view of its importance as a naval and military station. The Cape surrendered to the British forces in January, 1806, and from that date it virtually became a British colony, although the final cession of it by Holland to Great Britain only occurred after the Congress of Vienna, in 1814.

The Cape as a British Colony.—The Governors appointed by the British Government to administer public affairs exercised supreme power and authority. During the first twenty years the administration was conducted in a very arbitrary manner. They were disposed, however, to show a conservative regard for the old laws and institutions of the Colony. The general character of the policy adopted reflected, to a large extent, the liberal principles of administration introduced under the auspices of the Batavian Government. The colonists were at liberty to dispose of their produce upon the most advantageous terms, and a profitable market was at once provided by the large naval and military expenditure within the Colony itself, and at a later period by the establishment and supply of a garrison and squadron at St. Helena.

Earl Caledon (1807–11).—Earl Caledon, who was Governor of the Cape from 1807 to 1811, established a system of postal communication between Cape Town and the inland districts by relays of post-riders, abolished the slave-trade through the medium of British ships, instituted a subsidiary State Bank known as the Government Discount Bank, under the same management as the Lombard Bank, and sought to ameliorate the condition of the Hottentots by issuing regulations requiring that all contracts

entered into by them should be registered with the conditions as to wages, time of payment, and date of termination of contract. The object of these regulations was to protect the Hottentots and to encourage them to prefer entering the service of the European inhabitants to leading an indolent life, by which they were rendered useless to themselves and the community at large.

Sir John Cradock (1811-14).—During the administration of Sir John Cradock, several anomalies in respect of the economic and financial conditions of the Colony were removed or lessened or exposed. In the first place, the system of land tenure was improved and placed on a permanent footing. In 1813 a proclamation was issued, allowing the holders of loan leases to convert such into perpetual quitrent properties, to which they obtained title, enabling them to transmit the same hereditarily, or to do with their lands and buildings as they thought proper. The main object of this was to give security of tenure to the farmers, so as to encourage them to improve their land and extend agricultural operations.

Secondly, the system of local taxation was reformed and rendered more or less uniform throughout the Colony in 1814. There had been so many anomalies and inequalities in local taxation, and so many complaints, that in 1813 a Commission had been appointed to investigate the whole field of local or "special" taxes. On the basis of the recommendations of the Commission, an almost uniform system of local taxation was introduced, allowance being made only for differences between Cape Town and the country districts, and between some country districts with special needs and others not having those needs.

Thirdly, a Commission was appointed by Sir John Cradock in 1813 to inquire into the causes and effects of the depreciation of the paper currency. During the period from 1810 to 1814 the amount of paper money in circulation had been increased by a million rixdollars, in accordance with a proclamation issued by Earl Caledon in 1810. Depreciation had been the result, the value of the rixdollar declining to 2s. 6d. by 1813. The Commission reported, in 1814, to the effect that there had been an over-issue of paper money, that prices had been unduly inflated, and that certain issues should be called in. Sir John Cradock agreed with the findings of the Commission and was inclined to adopt their recommendations, but he was succeeded in that year by Lord Charles Somerset, who was at variance with these recommendations and had no intention of carrying them into effect.

Moreover, the Kaffirs on the eastern frontier had continued to be troublesome and dangerous cattle thieves, and the district of

Uitenhage had become practically uninhabitable. Sir John Cradock determined to take effectual measures to drive the marauders within their own boundaries, and Colonel Graham, after whom Grahamstown was called in 1812, was placed in command of a force consisting of armed burghers, European soldiers, and Hottentots. By the beginning of 1812 the Kaffirs had been driven across the Fish River, and peace was concluded in favour of the colonists.

According to the testimony of the colonists in public addresses on the resignation of Sir John Cradock, his three years' administration of the Cape "had conduced greatly to the happiness and prosperity of the inhabitants."

Lord Charles Somerset (1814-26).—Under Lord Charles Somerset's administration the colonists constantly felt that they were subject to the caprice of a single individual. He was the most arbitrary of the first series of Governors and exercised an absolute despotism.

The three important events of economic significance during his administration were :

(1) *Immigration of about Five or Six Thousand British Settlers in 1820-21.*—Prior to 1820 the only important accessions to the population of the Cape from the British Isles had been a number of merchants, traders, mechanics, labourers, and the civil and military officers appointed to the station. On his visit to the frontier districts, in 1817, Lord Somerset was so favourably impressed with the appearance of the unoccupied territory between the Sunday and Fish Rivers, which he described as "unrivalled in the world for its natural beauty and fertility," that he directed the attention of the British Government to the possibilities of systematic colonisation and recommended the settlement of a number of British emigrants in that territory. The recommendation was made at a most opportune time, as for several years after the close of the Napoleonic War England was in the throes of a general economic depression and regarded emigration as a convenient outlet for the relief of unemployment.

The British Government was eager to take advantage of the opportunity and asked Parliament to vote a sum of £50,000 for the encouragement of emigration to the Cape, to which Parliament responded. The eagerness to emigrate is illustrated by the fact that within a short time no less than 90,000 applications were received, but only five or six thousand were accepted.

Passages were provided for them at the expense of the Government, and each settler was given a 100-acre tract of land. Most of them were settled on the eastern frontier of the Colony, in the

region between the Fish and Bushman Rivers, which received the name of Albany.

During the first few years the Government did a great deal to tide these settlers over the difficult stage. Many of the settlers were unacquainted with agricultural and pastoral pursuits, and had moreover to contend with a series of blights. From the first year wheat was sown to the extent of their ability, and in the early stages of their growth the crops were very promising, but, as the grain ripened, the blight known as "rust" destroyed all the crops. This occurred three years in succession, and in 1823 it was even accompanied by heavy floods which caused considerable damage to houses, gardens, and live stock and subjected most of the immigrant settlers to great privation.

For a time the Government had continued to supply them with rations, through the Commissariat of the army on the frontier, but on the stoppage of rations, at the end of 1821, a large number of settlers of the working class began to abandon their holdings and to drift into other occupations. Those who were handicraftsmen found employment in Grahamstown, where skilled labour was in demand. Others made hunting expeditions into the country eastward along the coast, which was full of game of all kinds, including elephants, and carried on a contraband trade in cattle and ivory with the Kaffirs. This led to the establishment, in 1821, of a fair at Fort Willshire, on the banks of the Keiskamma River, where open and legitimate barter was carried on—the beginning of a commerce which soon expanded to a considerable extent. Elephants' tusks, corn, gum, mats, baskets, and skins of wild animals were the articles of produce brought in for sale by the Kaffirs, while the merchandise of the English traders consisted of beads and buttons (then the native circulating medium) and blankets, pots, brass- and tinware, the value of which the Kaffirs had begun to appreciate. The fair, however, was subsequently abolished by Lord Somerset, and trade with the natives was forbidden, as a result of which a great deal of smuggling was carried on until, in 1830, trading was permitted again and the Kaffir territories were thrown open to traders.

Many of the settlers had commenced trading with small means, and found their way to the fair on foot or on horseback, or in rude sleighs drawn by oxen; but by gradually extending their commercial operations, not only among the natives but also among their Dutch fellow-colonists, they ultimately laid the foundations of large and successful mercantile establishments.

The remainder of the immigrants had persevered and devoted their attention to agriculture and stock farming, and extended

their farms (originally 100 acres) either by petitioning the Government for an additional grant of land, in view of the difficulty experienced in earning a living on such a small tract of land in cases where combination of agricultural and pastoral pursuits was desired, or purchasing the adjacent grants of land from those who left for other occupations in the towns and villages. After four years of blights and floods, the conditions of the settlers started to improve in 1824-25.

In this way the Eastern Province was developed and converted by these British settlers into a prosperous district, with Port Elizabeth and Grahamstown as the important centres of trade.

(2) *General Depression at the Cape in 1821-24.*—It was not only in the eastern districts of the Colony that the farming community was suffering from a severe depression, caused by Kaffir wars, blights, and floods, but also in the south-western districts, where the farmers were in a state of distress on account of the lack of markets for their produce.

For several years subsequent to 1815 the island of St. Helena had afforded an excellent market for Cape produce, since all the meat, flour, peas, beans, dried fruit, brandy and wine required for the garrison and the warships maintained for the purpose of guarding Napoleon, were procured from the Cape. On the death of Napoleon, however, this market disappeared, and, moreover, the garrison at the Cape had gradually been decreased after the conclusion of peace until, in 1821, it did not exceed 2,500 men, whereas in 1814 there had been more than 4,000 soldiers in the Colony. Also the public expenditure exceeded the revenue, and the paper money had depreciated considerably.

(3) *Changes in the Currency.*—Important changes were brought about in the currency of the Colony in 1825. A fixed and uniform medium of exchange was introduced in place of the uncertain and fluctuating rixdollar. Metallic coins had passed out of circulation and the paper rixdollar, which was nominally worth 4s., had depreciated in value to 1s. 6d. To secure certainty and uniformity English silver and copper coins were introduced, which were made convertible into the gold currency of England, the paper rixdollar was declared equal to 1s. 6d. in English money, and to maintain it at that value it was exchangeable for bills upon the British Treasury, such bills being payable in English currency, thereby linking the currency of the Cape to that of England. The paper money brought in for the purchase of such bills was to be withdrawn from circulation.

Although, during the whole period of his administration, he had exercised an absolute despotism, tempered by favouritism in

political and social matters, he had taken an active interest in the development of the agricultural and pastoral resources of the Colony, giving personal encouragement to the improvement of the breed of horses, cattle, or sheep by the importation of the best stock, and in the construction of public roads, *e.g.*, between Cape Town and Worcester.

Boundary of Colony.—Lord Somerset had fixed the Keiskamma River as the future boundary of the Cape Colony. An outpost, Fort Willshire, was established in the vicinity of the Keiskamma River, and Fort Beaufort was erected near the Kat River. The land between the Keiskamma and Fish Rivers was to remain neutral territory uninhabited by either the colonists or Kaffirs, and it was to be patrolled by soldiers to prevent the Kaffirs from crossing the Fish River, a task which soon proved to be extremely difficult.

Alteration of Districts.—Lord Somerset had also effected several changes with regard to the division of the Colony into districts, of which there were eleven at the time of his departure (1826): the Cape District (including Cape Town) and the Districts of Simons-town, Stellenbosch, Worcester, Swellendam, George, Beaufort West, Graaff-Reinet, Uitenhage, Somerset East, and Albany. In 1828 the Colony was divided into two provinces, the Western and the Eastern, the Western Province comprising the first five of the abovementioned districts and the Eastern Province the other six.

Emancipation of Slaves.—By the Emancipation Act of the British Parliament, passed in 1833 but to take effect only in December, 1834, the institution of slavery was abolished throughout the British colonies and possessions.

Some of the colonists had already begun to adopt a plan of manumission, in the form of the liberation of the female children of slaves, when it was notified that the British Parliament had passed the Slave Emancipation Act. There was no real disinclination on the part of the colonists to emancipation on fair and equitable principles, and the announcement that £20,000,000 had been voted by the Imperial Parliament to compensate the slave owners throughout all British possessions, served as an assurance that just compensation would be given. The official appraisement of the 35,000 adult slaves in the Colony was £3,000,000, and it was expected that this amount would be paid.

In 1836, however, it was announced that, out of the £20,000,000, the amount apportioned to the Cape was only £1,247,000, and that payment would be made in London to all presenting and proving

their claims before commissioners. Thus, the colonists were put to further expense in order to recover merely a portion of their lawful property. They were compelled to employ agents to collect the money, whose charges still further reduced the sums of money to which the claimants were entitled. Many slave owners in the rural districts became the dupes of agents, who purchased their claims for half their value; others, regarding themselves as unjustly treated, indignantly refused to touch the documents entitling them to compensation, of which £5,900 remained unclaimed.

Immediate Economic Effects of the Abolition of Slavery.—Although there exists no doubt that the abolition of slavery ultimately proved to be highly beneficial to the development of the Colony, the immediate economic effects were decidedly detrimental, more particularly on account of the economic conditions prevailing in the Colony at the time of the emancipation of the slaves.

In the first place, the European population numbered only about 60 or 70 thousand, a small population scattered over a wide area. Of this small population nearly all, with the exception of a number of officials, soldiers, merchants, traders and craftsmen, depended for their subsistence upon the agricultural and pastoral industries. These industries were conducted by means of slave labour; and it was in some cases impossible, and in all cases difficult, to replace this slave labour by free coloured labour within the four years provided by the Act.

The Act had allowed an apprenticeship of four years, during which period the emancipated slaves were still under the obligation of serving their former masters for wages. The first day of December, 1838, witnessed the complete freedom of all the slave and indentured classes in the Colony. On that day, according to Judge Cloete, the former proprietors of slaves saw "the whole of their farming pursuits and plans destroyed; no bribe, nor entreaty, did avail in one single instance to induce any one of these now free persons to stay over that day. In some places remunerative wages were offered, but in the Eastern country districts this was impossible, and the agriculturists there found themselves totally deprived of every vestige of labour to improve or cultivate their farms, or even to superintend or herd their flocks." Many of the liberated slaves migrated to villages and to Cape Town, where an outbreak of measles in 1839, and of small-pox in 1840, carried off a considerable number of them.

Emancipation at the Cape involved, therefore, a serious dislocation of the principal industries of the Colony, although there is

every reason to believe that Cloete, who lost heavily in consequence of emancipation, was subject to the temptation to exaggerate in respect of the extent and complexity of the labour problem.

Secondly, the colonists suffered a direct loss of nearly £2 million, the official estimate having been £3,000,000 and the amount apportioned £1,247,000. It was just as heartrending for the colonists to accept that loss as it is for business firms to write down, in a time of deflation, the depreciated value of their stock-in-trade, or other property. The slaves formed part of the fixed capital of the farmers and were as much a form of property as houses or land. The farmers' property was thus reduced in value by almost £2,000,000, which was a large amount for such a small and semi-developed community, and they no longer received any return on that capital investment. Some were reduced to absolute poverty, while others were subject to financial embarrassment. The emancipation of the slaves at the Cape was effected at the cost of widespread misery and distress amongst the white population.

Moreover, no legislation was passed with a view to dealing with the vagrancy which was an inevitable result of the sudden liberation of 35,000 slaves. The Ordinance of 1828, which granted the Hottentots and other free persons of colour the same civil rights as the European population, had already proved such a nuisance ; and it was to be expected that the emancipation of the slaves would render the problem of vagrancy far more serious. The colonists needed protection against "the negroes turned loose upon the country." The absence of vagrancy legislation involved the farmers in a good deal of trouble and, coupled with the inadequate compensation, inflicted a severe blow on the unfortunate colonists.

In the meantime, the Colony had suffered a serious loss as a result of the emigration of several thousand inhabitants from the border districts.

THE GREAT TREK.

Antecedent Social, Economic and Political Conditions.—For several years prior to 1835 there had been an accumulation of grievances in the Colony. In 1825 the English silver coinage had been introduced and the value of the paper rixdollar fixed at 1s. 6d. In 1827 English had been ordered to be used as the official language of the Colony. In 1828 the system of Landdrosts and Heemraden had been abolished, thereby depriving the colonists of the slight share they had enjoyed in public affairs ; and the "Fiftieth Ordinance" had placed the Hottentots on terms of legal equality with the Europeans, as a result of which thousands of Hottentots, released from all restraint, were wandering about the country in

a condition of vagrancy and regarded as a pest by owners of property. In 1833 the Slave Emancipation Act had been passed by the British Parliament which had provided for the release of the slaves within five years, by 1st December, 1838, instead of gradual emancipation during a whole generation as desired by the colonists.

Finally, the colonists who were settled in the eastern districts (*i.e.*, the frontier districts) had been placed at the mercy of marauding Kaffirs. They were not adequately protected by the Government, nor were they permitted to protect themselves. The marauding habits of the natives on the eastern frontier had culminated in the ruinous war of 1834, when the border colonists, living on widely separated farms, were unexpectedly attacked by more than 10,000 Kaffirs. Adequate precautionary measures had not been taken by the Government and no immediate organised resistance could be offered.

The financial losses sustained by the colonists were considerable, and many were hopelessly ruined. The Kaffirs succeeded in carrying off, according to official statistics, 111,930 head of cattle, 161,930 sheep and goats, 5,715 horses, and 60 wagons, and in burning 456 farm-houses and pillaging and partially destroying 356 more. Besides these losses, estimated officially at £300,000 or £350,000, a large number of the colonists were murdered.

The Kaffirs were ultimately subjugated, and as an indemnity for the war and a security for the future, British sovereignty was extended and proclaimed by the Governor, Sir Benjamin d'Urban, over the territory of the defeated tribes as far as the Great Kei River. At the same time a number of Fingoes, who were in servitude with the Xosas, but who had kept aloof during the war, were released from their bondage and located within the new border, to serve as a sort of buffer state. In this way Sir Benjamin d'Urban had attempted to devise measures which would prevent the recurrence of such a disaster.

The treaty concluded with the Kaffirs by him in 1835 was, however, disapproved of by Lord Glenelg, Secretary of State, and ordered to be reversed. The claim of sovereignty over the new territory was to be renounced and the limits of colonial authority moved back to the Fish River. Thus, the measures which Sir Benjamin had taken in defence of the border colonists were revoked, and the whole frontier policy was reversed, as a result of which there was intense dissatisfaction.

There had already been an accumulation of grievances, but Lord Glenelg's subversion of the treaty concluded with the Kaffirs by Sir Benjamin was the deciding factor. The cup of discontent had

not been far from full, and the overthrow of Sir Benjamin's policy and the exposure of those colonists to a recurrence of a Kaffir invasion, with the customary looting and devastation, intensified the feeling of dissatisfaction and caused the cup to overflow. Thus it was that the frontier farmers of Dutch descent, who were not bound by ties of sentiment to the British connection, resolved to withdraw themselves from the control and jurisdiction of the British Government, "to be free from an unwise and unsympathetic administration" and "to seek fresh fields and pastures new" beyond the borders of the Colony.

The emancipation of the slaves, while it did probably prove to be a subsidiary factor, was not a direct cause of the emigration of the colonists. The great bulk of the emigrants had been settled in the Eastern Province, where the number of slaves was considerably less than in the Western Province. Thus the colonists who suffered most by the abolition of slavery remained in the Colony. It was Lord Glenelg's subversion of the peace treaty concluded with the Kaffirs that finally caused the large number of frontier farmers to leave the Colony; and they were further induced to take this action in consequence of economic pressure which had already begun to make itself felt in the border districts.

The border colonists had been held up by the Kaffirs since 1778. In other words, the advance and dispersion of the stock farmers had been checked and confined within certain limits by the powerful Kaffir tribes on the other side of the Great Fish River. In the meantime they were being caught up by closer settlement from behind; and, in addition, Cole's law of 1831 prescribing the sale of Crown Lands by auction rendered it more difficult for their sons to come into possession of large stock farms along the rivers and streams, as was the custom at the time, within the boundaries of the Colony. At the same time they knew, from the reports of those who had organised expeditions to the north and north-east, that there was a huge expanse of unoccupied and fertile land on the northern side of the Orange River. A number of frontiersmen had already, prior to 1835, emigrated from the Colony and settled on the other side of the Orange River.

Thus did economic pressure combine with the accumulation of political and other grievances in causing the "Great Trek."

Emigration into the Interior.—The emigration of the frontier farmers on a large scale (known as the "Great Trek") commenced in 1836 and continued through 1837 and 1838. During those two years about 7,000 or 8,000 emigrants, known as the "Voortrekkers" or pioneers, found their way into the interior, moving northward and to the north-east. They sold their farms

and such other non-transportable property as they possessed, at whatever prices they could obtain, many farms being exchanged for a wagon and a team of oxen, and some for even less value, and took along with them their wagons, cattle, sheep, and horses. They emigrated to the country beyond the Orange River where, after numerous adventures and exploits under their leaders, viz., Retief, Maritz, Potgieter, Uys, and Pretorius, and encounters with the savage hordes of Moselekatse and Dingaan, their efforts finally led to the establishment of three new states: the Orange Free State, Natal, and Transvaal.

Period of Territorial Expansion and Political Reorganisation (1834–56).—While the period from 1834 to 1856 is also noted for the fact that there was a great deal of disturbance and insecurity as the result of Kaffir wars and the emancipation of the slaves, and that the germs of the subsequent economic development were brought into being, it may justifiably be called the period of territorial expansion and political reorganisation, since there was an exceptional expansion of territory under European occupation in South Africa, as well as considerable reorganisation of the political structure of the Cape Colony and the three new states created in consequence of the expansion.

When the Voortrekkers crossed the Orange River in 1836, they found a huge expanse of territory which had been almost entirely depopulated as the result of barbaric warfare among the native tribes, marked by countless aggressions and wholesale massacre of life. The region eastward of the Drakensberg, now comprising the Province of Natal, had been swept almost clear of inhabitants, between the years 1812 and 1828, by the sanguinary acts of Chaka, the chief of the Zulus, who had pursued a policy of extermination of other native tribes. This policy of extermination had also been carried out by Moselekatse, the chief of the Matabele, and the Mantatis, whereby the country north and south of the Vaal River, embracing a considerable part of the Provinces of Transvaal and Orange Free State, had likewise been laid waste.

These Bantu devastations had prepared the way for the emigrants from the Cape Colony and rendered it easy for them to obtain possession of large areas of land. They found the central portion of the territory north of the Orange River uninhabited and settled there, coming gradually into contact with the Basutos on the east and the Griquas to the south-west, and had no difficulty in purchasing tracts of land at nominal prices. For example, Commandant Potgieter, the leader of a party of emigrants from the neighbourhood of Colesberg, purchased the territory lying

between the Vaal and Vet Rivers from Makwana. A tract of land was reserved for Makwana's tribe, and payment was made in cattle.

However, before the great mass of Boer emigrants finally established themselves in what are now known as the Orange Free State, Natal and Transvaal, they had to overcome the Matabele under Moselekatse in 1837 and the Zulus under Dingaan in 1838. In 1837, after new parties of emigrants had swelled the number of settlers in the territory between the Caledon and Vaal Rivers, a considerable commando was formed which proceeded against Moselekatse and succeeded in driving him beyond the Limpopo. The vast area of land which Moselekatse had overrun and subjected to a veritable reign of terror, now passed into the possession of the Boers by right of conquest. Likewise, in 1838, when the Zulus under Dingaan were routed in the Battle of Blood River and put to flight, the Boers came into possession of a large tract of land in Natal.¹

However, these Boer emigrants from the Cape Colony did not become permanent residents of Natal. Even before the Battle of Blood River, Commandant Potgieter had left Natal with his adherents and proceeded to the country between the Vaal River and the Magaliesberg. The remainder had settled down as farmers after the defeat of the Zulus and established the Republic of Natal; but when in 1843 Natal was proclaimed British territory, they emigrated from Natal and settled in the Transvaal and the Orange Free State. Natal was placed under the Cape Government and regarded as an appanage of the Cape Colony until 1856, when it became a separate British colony and obtained representative government. To offset the loss of population arising from the emigration of the Boers, about 4,000 British immigrants had been introduced into Natal in 1848-51.

¹ Dingaan had indeed agreed to cede to Piet Retief, and the emigrants under his leadership, the territory between the Tugela and Umzinvubu Rivers, and had actually signed the deed of cession whereby that tract of land was ceded to the Boer emigrants "for their everlasting property": but in view of the fact that, in accordance with Bantu customs and traditions, the Chief had no right to sell or alienate any land belonging to the tribe as a whole and held by him, as a sort of trustee, on behalf of his tribesmen, the permanent possession of that territory by Europeans after 1838 rested, strictly speaking, upon the right of conquest.

The tradition that the Chief had no right to alienate any land was mainly responsible for the total disregard, by the Chiefs themselves, of cessions of land to Europeans. The tract of land, mentioned above, had been ceded, wholly or partly, on several occasions to different Europeans, viz., to Lieutenant Farewell in 1824, to Isaacs, a Jewish trader, in 1828, to Gardiner in 1835, and in 1838 it was again ceded to Piet Retief.

In the meantime the territory between the Orange and Vaal Rivers had been annexed to the British Empire, in 1848, under the name of the Orange River Sovereignty. The northern half of this territory, known at the time as the District of Winburg in the Republic of Potchefstroom-Winburg, was occupied by several thousand Boer emigrants from the Cape, while the southern section represented the reserves and alienable lands of Adam Kok and Waterboer, the Griqua Chiefs, and the south-eastern area was the seat of Basuto reserves and mission reserves occupied by half-breed and broken Bantu clans at Beersheba, Thaba Nchu, Imparani, etc. In 1849 Major Warden adjusted the boundary line between Basutoland, the native reserves on the Caledon River, and the European part of the Sovereignty, and in 1854 the territory comprised within that part of the Sovereignty was set up by Great Britain as an independent republic in terms of the Convention of Bloemfontein, in view of difficulties with the Basutos. In this way the Orange Free State had come into existence.

The nucleus of the South African Republic (or Transvaal) was the District of Potchefstroom, which was at first part of the Republic of Winburg. The earliest settlements were situated in two main groups—one along the Vaal River and the Magaliesberg range at Potchefstroom (1839), Rustenburg (1851), and Pretoria (1855), the other just south of the Zoutpansberg at Ohrigstad (1845) and Schoemansdal (1858). Moreover, Lydenburg was founded in 1846 on land purchased from the Swazis, and Utrecht in 1848. Thus there were three groups of Boer settlements between the Vaal and Limpopo Rivers in 1852 when, under the Sand River Convention, Great Britain acknowledged the independence of the Boers north of the Vaal River, although it was not until 1860 that all these settlements (the Republics of Potchefstroom, Zoutpansberg, Lydenburg, and Utrecht) were combined in the South African Republic.

The Cape Colony was also subject to considerable expansion during this period. In 1847-48 the northern boundary of the Colony was extended to the Orange River, and the eastern frontier to the Keiskamma River. Moreover, British sovereignty was proclaimed, in 1847, over the territory between the Keiskamma and Great Kei Rivers, which became a separate Crown Colony under the name of British Kaffraria, and the eastern frontier was further strengthened by the military villages of Juanasburg, Woburn, Auckland, and Ely.

With regard to the political structure, a Legislative and an Executive Council had been created in the Cape Colony in 1834, but it

was not until 1854 that Parliamentary institutions came into operation, and even then responsible government was not conceded, *i.e.*, the members of the Executive body were appointed by the British Government and not by the strongest party in the Cape Parliament.

Kaffir Wars.—The period from 1834 to 1856 was also one of frequent disturbance and insecurity, with the result that the economic development of the country was seriously retarded. In the Cape Colony the Kaffir Wars of 1834-35, 1846-47, and 1850 involved heavy losses to the colonists, not only of human lives, but more particularly of farmhouses, cattle, sheep, horses, and wagons. These disastrous disturbances tended to discourage the frontier farmers and to exercise a baneful influence on the development of the agricultural and pastoral resources of the border districts. A feeling of insecurity was created, which is always fatal to economic progress. It was, in fact, this insecurity of life and property which, in 1836 and 1837, had largely induced those 8,000 colonists (mainly from the border districts) to emigrate and move further into the interior, where they would not be subject to such devastating Kaffir raids.

However, before they finally settled down, they had to overcome the Matabele in 1837 and the Zulus in 1838. Those who had settled in the territory of the Orange Free State were for many years subject to the plundering and looting of the Basutos on the border—the same trouble as in the Cape. The policy of Moshesh, the Basuto chief, was that of extending his territory by pillage and plunder. And in the South African Republic the burghers were engaged at intervals in petty wars with the surrounding native tribes, such as the Bakwena in 1853 and Makapan and his tribe in the following year.

Economic Development.—In view of the numerous disturbances and reorganisations during this period, with the accompanying insecurity and lack of continuity of development, comparatively little material progress was made. Progress was indeed made in several fields of economic activity, such as in agriculture, trade, banking, and the construction of roads and bridges, but in general and in comparison with the subsequent development, the rate of progress was slow.

Agriculture.—In agriculture and live-stock breeding there was a steady advance² throughout this period, in spite of devastating

² On account of the more settled conditions in the Cape Colony, the advance was most marked there. In Natal, Transvaal and O.F.S. the foundations of agricultural and pastoral development were only being laid during this period.

Kaffir wars. A larger area was brought under cultivation ; there was an increase in the production of corn, oats, barley, rye, wine and brandy ; maize had been grown with success and was being rapidly extended ; there was also an appreciable increase in the live stock of the country, and an improvement in the quality, as new and better breeds of cattle, sheep, and horses had been introduced from time to time. In the production of wool, especially, considerable progress was made. Merino sheep had been imported in increased quantities, and the rearing of woolled sheep had become more and more extensive. For example, the export of wool advanced from 144,000 lbs. in 1834 to 14,900,000 lbs. in 1856. The establishment of agricultural societies had also assisted in this matter.

Foreign Trade.—As a result of the increased agricultural and pastoral production there was an expansion of foreign trade. The Cape Colony had developed an appreciable export trade in wool, wine, hides and skins, and to a lesser extent in grain. The export trade increased in value from £370,000 in 1834 to £1,330,000 in 1856. This gave the colony an increased purchasing power abroad and enabled her to import more of the textile manufactures, agricultural implements, and other articles required for the satisfaction of the wants of the colonists and the economic development of the country. For example, the value of the imports rose from £463,000 to £1,588,000.

Banking.—The development of agriculture and trade had all along been retarded by the slow growth of banking institutions and transportation facilities. Prior to 1831 there had been only one bank in the Cape Colony, and that was the Lombard and Discount Bank, a State bank, which had originally been established in 1793 on the basis of an inconvertible paper-money capital and had been entirely inadequate in financing the business and meeting the requirements of an expanding colony. In view of the growing needs of the Colony and the lack of enterprise on the part of the Lombard and Discount Bank, there came a reaction to the State monopoly of banking and a rapid multiplication of local institutions. Between 1831 and 1856, 18 new banks were established in the Cape Colony and one in Natal. Some were purely local banks, while others had several branches. The increased banking facilities, however, did not exert their full beneficial effects until after 1856.

Transportation.—During this period an earnest attempt was also made to commence the improvement of the means of internal transportation. The only means of transportation at the disposal of the inhabitants were ox-wagons over roads which were,

in general, more of the nature of beaten tracks than prepared road-beds. Rivers and mountain ranges, moreover, proved to be formidable obstacles. There were no railways or canals, and owing to the peculiar physical structure of the country the rivers were not suitable for navigation. The lack of adequate transportation facilities had always been a serious deterrent to the development of agriculture and wool-growing.

In order to offset the disadvantages resulting from the absence of navigable waterways and railways, it was doubly essential to have a good system of roads. This was more fully realised now in view of the need for inter-communication between the coastal regions and the interior, not only for the sake of widening the scope of the domestic market, but also to take advantage of the foreign demand for wool, hides and skins, grain, wine, etc. Accordingly, in 1844 the construction of a series of public highways, bridges and mountain passes was set on foot. This improvement of the system of internal transportation contributed in no small degree to the subsequent development.

Moreover, ocean transportation had also been improved and extended in the meantime. A steamship service had been established between Cape Town and England, and between Cape Town and Port Elizabeth, but ocean transportation was still hampered by the lack of harbour and dock accommodation.

Conclusion.—It was during the period from 1834 to 1856 that the germs of the subsequent economic development of South Africa were brought into being, mainly in the form of improvements in banking and transportation facilities, agricultural methods and organisation and the rearing of live stock. This development was extended at a comparatively rapid rate during the period from 1856 to 1870, but its most important stimulus was undoubtedly afforded by the foundation of Kimberley and the diamond-mining industry in 1870, and of Johannesburg and the gold-mining industry in 1886.

Period from 1856 to 1870—Foundation of National Prosperity.—During this period the conditions became more favourable for economic development, and the foundation of national prosperity was laid. There were relatively few disturbing factors that tended to retard the development of the country, the most important being the prolonged hostilities between the Basutos and the Orange Free State and the depression during the latter half of the sixties.

Basuto Wars.—Moshesh, the Basuto chief, refused to abide by the boundary which had been adjusted by Major Warden and agreed upon at the Convention of Bloemfontein, and Basutos

roamed about plundering and stealing cattle, and even occupied land in the Orange Free State. War broke out in 1858, the outcome of which was that a treaty was arranged at the First Convention of Aliwal North. But although the Basutos had obtained an extension of territory, they continued to disturb the border with their acts of pillage and plunder, and war broke out again in 1865. Basutoland was invaded by the burghers of the Orange Free State, and heavy losses were inflicted upon the Basutos. For the sake of greater security, the O.F.S. claimed a portion of the territory of Basutoland along the entire length of the border, and Moshesh asked to be taken under the protection of the British Government. In 1868 Basutoland was proclaimed British territory, and in 1869, at the Second Convention of Aliwal North, a definite frontier was agreed upon. The territory north and west of the Caledon River and south of a dividing line between the Caledon and Orange Rivers was definitely ceded to the O.F.S., and still bears the name of "the conquered territory."

In the Cape, Transvaal and Natal, on the other hand, this period was one of comparative peace and tranquillity.

Agricultural Depression.—The second disturbing factor was the agricultural depression of the latter half of the sixties (1865-70). The speculative boom consequent upon the introduction of a large amount of foreign capital in connection with the establishment of the so-called Imperial Banks was followed by a trade depression in 1865 and 1866. In addition to this, abnormal seasons and protracted droughts occasioned a great loss of sheep and cattle; the wine farms were devastated on account of "oïdium"; the wine trade itself was depressed, as Gladstone's alcoholic scale of duty almost excluded the Cape wines from the English market; and the war between the O.F.S. and the Basutos disastrously affected business.

Political Stability.—However, with these exceptions, the conditions were comparatively favourable for economic development. In the first place, all of the four political divisions now comprising the Union acquired more settled political conditions. The Cape of Good Hope and Natal had developed into British colonies with representative government, and the Transvaal and Orange Free State into coherent independent republics, officially recognised by great Britain. As a result of the greater political stability, the economic organisation also acquired greater stability, which is one of the first essentials of economic progress.

There was only one important disturbing feature in the political situation. The period of adversity brought to an issue the question of responsible government in the Cape. In accordance with

the Constitution granted in 1853, the Cape Parliament was composed of representatives elected by the people, while the members of the Executive were appointed by, and responsible to, the Imperial Government. This was liable to cause a want of harmony between the Executive and the Legislature. In 1867-69, when the revenue declined as a result of the depression, the Government submitted a scheme of taxation to equalise revenue and expenditure; but the House of Assembly resolved that, instead of taxation, there should be retrenchment of expenditure. Matters threatened to come to a deadlock. Parliament was dissolved and a general election held, the issue being a choice between a representative legislature with an independent executive or responsible government, where the executive is composed of members of the legislature and directly responsible to it. The result of the election was the institution of responsible government in 1872.

Transportation and Communication.—Secondly, the means of transportation and communication were increased and improved. The construction of roads, bridges and mountain passes was continued; in 1859 a beginning was made with the construction of railways; in 1860 the railway from Point to Durban was opened for traffic; in 1863 the line from Cape Town to Wellington (*via* Stellenbosch), and in 1864 that from Salt River to Wynberg; a penny post was inaugurated in Cape Town in 1860 and extended to various other centres in the following decade; in that year also telegraphic communication was established between Cape Town and Simons-town, and in 1864 between Cape Town and Grahamstown; in Natal a telegraph service was installed between Durban and Pietermaritzburg; and in 1860 a commencement was made with the construction of harbour works in Table Bay.

Banking.—Thirdly, banking facilities were increased. The establishment of a large number of district or local banks between 1836 and 1862 extended the financial resources available to the community. By 1862 there were 29 local banks in operation in the Cape Colony, the Natal Bank in Natal, and the Bloemfontein Bank in the O.F.S. This period also witnessed the advent of the so-called Imperial Banks, the London and South African Bank having been established in 1861 and the Standard Bank in 1862. This involved the importation of a large amount of foreign capital, the establishment of numerous branch banks and the gradual absorption of the local banks, and a speculative boom culminating in a serious crisis in 1865 and 1866.

Tariff Autonomy.—Fourthly, the Cape and Natal acquired tariff autonomy in the fifties, when representative government came

into operation. Free trade had become an acknowledged principle in England, and the last mercantilistic tendencies in British commercial policy in the form of restrictions on trade and navigation within the Empire were removed. The Cape and Natal now received the opportunity, for the first time, of framing their own tariff policies in accordance with their needs.

Population and Territory.—Fifthly, there was a substantial increase of the European population as the result of immigration. Small parties of immigrants arrived from time to time and settled in the country. In 1857 about 4,000 soldiers of the Anglo-German Legion, who had served against Russia in the Crimean War, were introduced and settled by Sir George Grey in British Kaffraria as a sort of protection for the Cape Colony; and in 1858-59 about 2,000 agricultural immigrants from North Germany were also introduced into British Kaffraria. These German settlers laid the foundations of Kingwilliamstown, East London, Berlin, Potsdam, Frankfort, Stutterheim, Wiesbaden, etc. In 1865 British Kaffraria was annexed to the Cape Colony, and consequently the Great Kei River became the boundary of the Colony.

Natal expanded its territory by the annexation of the district of Alfred, on its southern border, in 1866, and the O.F.S. by the annexation of the conquered territory after the Basuto War of 1865-66. Moreover, Adam Kok, the Griqua Chief, had allowed Europeans to purchase land in the Griqua reserve situated in the O.F.S. In 1861 the remainder of the reserve was sold, and the entire Griqua tribe migrated to the southern border of Natal, where that tract of territory now known as Griqualand East was allotted to them by Sir George Grey. Thus the whole of the Orange Free State, with the exception of the Baralong reserve under the chief Moroko, and the small strip of land belonging to the Griqua Captain, Nikolaas Waterboer, came to be owned by European inhabitants.

Agriculture and Trade.—As a result of the aforementioned factors there was an appreciable increase in the agricultural and pastoral production of South Africa, as well as in foreign trade. Exports from the Cape and Natal ports advanced from £1,330,000 in 1856 to £2,950,000 in 1870, and imports from £1,588,000 to £2,781,000. The imports were composed mainly of manufactured articles, and of wheat and flour in times of bad harvests; and the exports consisted primarily of pastoral produce and reflected the growth of the pastoral industry, since such pastoral products as wool, hides and skins, ostrich feathers, mohair, etc., were all exported and the manufactures imported. The export of wool increased from 14,921,000 lbs. in 1856 to 40,896,000 lbs. in 1870; the number of hides and skins exported advanced from 864,000 to 2,742,000, the

value of ostrich feathers from £7,500 to £87,000, and of mohair from nil to £26,000.

The increase in the agricultural production was limited almost entirely to the increase in population and the local demand. There was a relatively small foreign demand for the agricultural products of South Africa, in view of the fact that other new countries were developing their agricultural resources more efficiently and had already secured a firm footing in the markets of Europe. Only small quantities of wine, maize and sugar were exported.

The Cape Colony was by far the furthest advanced in agriculture and stock farming. By 1870^{*} substantial progress had been made in (a) the cultivation of wheat, maize, oats, barley and rye, (b) viticulture, (c) fruit-growing, (d) wool-growing, (e) cattle farming, (f) dairying, and (g) horse breeding, and a commencement had been made with ostrich farming and the rearing of angora goats. The Orange Free State had also made fair progress with the cultivation of cereals and wool-growing, in respect of which it was second to the Cape; and Natal followed with the cultivation of cereals, fruit, sugar, and tea, and the rearing of live stock. The South African Republic was almost entirely a pastoral country at the time, engaged mainly in the rearing of cattle and, to a lesser extent, in sheep farming and agriculture.

Conclusion.—The way had thus been prepared for the development of the agricultural and pastoral resources—the mainstay of the country.³ Banking and transportation facilities had been improved; new and better methods of agriculture and stock farming had been adopted; the population had been increased not only by a large excess of births over deaths, but also by immigration; the territory under European occupation had been considerably expanded; the aboriginal tribes had been almost completely subdued and brought under control; and considerable progress had been made in the direction of self-government.

But, in order to accelerate this development, there was an urgent need of:—

- (1) Cheaper and better methods of transportation from the interior to the coast;
- (2) the capital to undertake the construction of railways, telegraphs and telephones, and the further extension of banking facilities;
- (3) valuable commodities of small bulk for export with a view to acquiring an increased purchasing power abroad, such

³ The manufacturing industry, the forests, and the fisheries were developed on a comparatively small scale only and did not offer any considerable scope for employment.

- being the easiest means of obtaining the manufactured articles required by the inhabitants of a new country ;
- (4) a wider local market for agricultural produce ; and
 - (5) new sources of revenue so as to enable the State to undertake more functions and increase its activities in the public interest.

These needs were satisfied, to a great extent, by the opening of the diamond mines at Kimberley in 1870—hence the importance of 1870 as a landmark in the economic history of South Africa.

CHAPTER 2.

CHRONOLOGICAL SURVEY OF SOCIAL, POLITICAL AND ECONOMIC CONDITIONS (1870–1923).

Importance of Mineral Resources.—The discovery of valuable minerals was an important economic event in the history of South Africa. It set in motion certain economic forces which were destined to speed up the development of agriculture, stock farming, industry and trade. The colonies and republics in South Africa were in need of valuable commodities for export, capital for the expansion of the modern facilities of transportation, communication and banking, a larger European population, a greater diversification of occupations, a wider local market, more productive sources of revenue for the State, etc. The development of the mining industry furnished these necessary instruments of economic progress, and was the main contributing factor in the rapid development of the country during the period from the foundation of the diamond-mining industry in 1870 to the establishment of the Union of the four main political divisions in South Africa in 1910, when the exploitation of the mineral resources had practically been carried to its maximum limit.

Diamond Era (1870–86).—During the period from 1870 to 1886 considerable material progress was made. The discovery of diamonds in payable quantities led to a rush of immigrants from Europe and the importation of a large amount of foreign capital for the exploitation of the diamond mines and the development of all the facilities required for the expansion of the diamond industry. By 1880 already the value of the annual production of diamonds in South Africa amounted to over £3 million. The investment of foreign capital and the exportation of diamonds gave the country an increased purchasing power abroad, which was very welcome in view of the dependence upon imported goods. In 1881 and 1882 the imports even exceeded £11 million, whereas prior to the diamond era they never amounted to more than £2½ million. Then also, the increase in the yield of the diamond mines from time to time increased the ability of the country to pay the interest and dividends on foreign capital and so improved our credit abroad.

Trade and Revenue.—The diamond industry occasioned a considerable increase in the trade and revenue of the South African territories, more particularly Cape Colony. The exports from the

Cape and Natal ports advanced from about £3 million in 1870 to £9 million in 1882 and £8 million in 1886, and the imports from £2,780,000 in 1870 to £11½ million in 1882 and £5 million in 1886. The decline in imports and exports was the result of a depression following upon the speculative boom which had been set in motion by the expansion of diamond mining and brought to its bursting point by the Transvaal secession and the Basuto War in the early eighties.

The revenues were also substantially enhanced. In Cape Colony the revenue was more than doubled within the first five years and quadrupled by the end of the first decade after the opening of the diamond mines. From about £600,000 in 1870 the revenue (excluding railway revenue) rose to £2,400,000 in 1881, declining to £2,100,000 in 1886 as a result of the depression. In Natal the revenue advanced from £120,000 in 1870 to over half a million in 1886, in the Orange Free State from £60,000 to £200,000, and in the Transvaal from a few thousand to almost £200,000. The main sources of revenue were customs duties, stamp duties, licences, transfer duty, and income from Crown lands. The revenues were enhanced by the diamond industry in consequence of the increase in imports, legal and commercial transactions, land transfers, sales and leases of Government land, etc.

Railway Transportation.—The need of cheaper and better methods of transportation from the coast to the interior, and *vice versa*, became more apparent when the diamond industry gave rise to a town in the heart of the interior—a town which was rapidly growing in population and wealth but was severely handicapped by the lack of adequate means of communication with the outer world. The pioneers of Kimberley had to contend with many adverse circumstances. The barest necessities of life were almost unobtainable in such an arid region. Communication with Cape Town was slow, difficult, and costly. The railway had not been carried further than Wellington, and Kimberley is 600 miles from Wellington.

The necessity of railway transportation between Cape Town and Kimberley was fully realised by the new Ministry which came into power in 1872, under the system of Responsible Government. There was a lack of private initiative and capital in the Colony. The construction of 600 miles of railway from Wellington to Kimberley was beyond private enterprise as manifested at the time. The Government was therefore obliged to undertake the construction of that railway, and it was encouraged to do so by the increase in trade and revenue arising from the exploitation of the diamond fields.

In 1873 the Cape Government purchased the existing lines and embarked upon a programme of railway construction. In the course of the next ten years railway lines were carried into the interior from the three principal ports (Cape Town, Port Elizabeth and East London) to meet at De Aar Junction; and from this point the railway was extended northwards direct to the goal of Kimberley, which was reached in 1885.

In Natal the Government had also decided to purchase the few miles of line in existence and undertake the improvement and extension of railway transportation. In the Orange Free State and the South African Republic, however, no railways had been constructed yet.

Other Improvements in Transportation and Communication.—Considerable improvements had also been made in connection with ocean transportation, harbour and dock facilities, telegraphs, telephones, roads and bridges. The Castle and Union steamship companies provided a regular mail service between South Africa and England, and in view of the rapid expansion of foreign trade other steamship companies had come into competition as well. To cope with the increased traffic the harbours were improved and better dock accommodation, landing appliances, etc., provided. Telegraphic communication between Cape Town and Kimberley was established in 1876, and a connection was made with the Natal line in 1879. In that year telegraph offices were also opened at Pretoria and Standerton. In 1880 cable communication with Europe was rendered possible, and in 1882 the telephone was introduced into South Africa. The work of constructing roads and bridges was also pushed forward with new energy.

Banking.—The expansion of trade had rendered the increase of banking facilities necessary. The Standard Bank was ready to take advantage of this need and became very active. During the decade from 1870 to 1880 the deposits of this bank advanced from £500,000 to over £5 million, and the loans and discounts from £1,370,000 to over £6 million. The local banks also expanded their business. There was a good deal of speculation in diamond shares, inflation as the result of the absence of checks on the expansion of the currency, overtrading, political unrest, etc.

The outcome was a depression which prevailed in more or less acute form from 1881 to 1886. The banks suffered heavy losses and were obliged to contract their note circulation and loans to the public, but the progress made directly after the diamond rush was maintained to a large extent.

Agriculture.—The diamond industry also provided a wider local market for agricultural produce not only as a result of the larger

population and increased purchasing power, but also the improvement in the organisation of the domestic market. Kimberley became an important market for local produce. The opening of the diamond mines had attracted thousands of immigrants from various parts of the world. In view of the external trade conditions agricultural production was virtually limited to the local demand. The exportation of agricultural produce was comparatively insignificant, only a small quantity of maize, wheat and wine being shipped overseas, as the opening of the fertile prairie lands in the West of the United States and the development of cheap transport facilities had brought about very keen competition from America, Russia, Egypt, India, etc., in the markets for agricultural produce in industrial Europe.

According as the local demand increased, the agricultural production advanced. The rise of an industrial centre in the heart of South Africa was thus an event of great importance from the agricultural point of view. The development of agriculture went hand in hand with that of mining.

The local demand was increased during this era by (1) the rapid growth of population (natural increase plus immigration), (2) increase of wealth and purchasing power, and (3) widening of the domestic market by the improved facilities of railway transportation, communication and banking, rendered available to the community under the direct stimulus of the diamond industry.

As a result of the increase in the local demand for agricultural produce, more land was brought under cultivation, newer and better methods of farming were adopted, the use of machinery, improved implements and fertilisers became more common, farmers' organisations were extended, etc. Agriculture had acquired a new lease of life and made rapid progress.

Pastoral Industry.—The pastoral industry also made a good deal of headway during this period. The local demand for pastoral produce such as meat, fat, milk, butter, etc., was increased by the diamond industry in the same way as in the case of agricultural produce; and the improved facilities of transportation and banking promoted the development of the export trade in such pastoral produce as wool, hides and skins, mohair, ostrich feathers, etc. The export of wool advanced from 41 million to 69 million lbs., hides and skins from 2,750,000 to 4,400,000 (no.), mohair from 403,000 to 5,400,000 lbs., and ostrich feathers from 29,000 to 289,000 lbs.

Handicrafts and Subsidiary Industries.—In the handicrafts and subsidiary industries there was likewise a substantial advance,

although as yet very little was done in connection with the manufacturing industry proper.

Expansion of Territory.—During this period the Cape Colony had further expanded its territory by annexing the Transkei in 1875, Griqualand East in 1876, Griqualand West in 1880, and Tembuland in 1885. Basutoland had been governed as an integral part of the Cape Colony from 1871 to 1884, but as a result of the Basuto Rebellion in the years 1880-83, when the Basutos had revolted against the Cape Government on account of being required to surrender their firearms in accordance with the Peace Preservation Act, it was taken over by the British Government in 1884 and proclaimed a Crown Colony. The Colonial Government had not been able to fully subjugate the Basutos, in spite of an expenditure of £4½ million.

Territorial Dispute.—At the time of the discovery of the diamond mines the ownership of the diamond-field territory had been the subject of a serious dispute. Emigrants from the Cape Colony, under the leadership of Fourie, had bought it from a Koranna chief Dantzer. From 1848 to 1854 it had formed part of the territory of the Orange River Sovereignty, and part of the Orange Free State thereafter. Farmers had occupied land in this district, holding title-deeds for the same issued by the Orange River Sovereignty, and had been in possession thereof for 20 years. But when diamonds were discovered there, the Griqua chief, Nicholas Waterboer, laid claim to that territory and appealed for protection to the British Government, at the same time offering cession of his land and people to Great Britain. The claim was supported and the cession accepted by the British Government, and in 1871 the land was proclaimed British Territory under the title of Griqualand West, in the face of protests from the Orange Free State which, however, subsequently received the sum of £90,000 from the British Government as compensation for the waiving of all claims to the annexed territory.

Conclusion.—The Cape Colony derived the greatest benefit from the exploitation of the diamond fields, although the Orange Free State and Natal also enjoyed a fair share of the prosperity. The compensation payment of £90,000 had enabled the Free State to redeem the inconvertible paper currency of £130,000 which had been issued in connection with the Basuto Wars in the sixties, and had been of great assistance in the establishment of the National Bank of the Orange Free State in 1877. Moreover, diamond mines had been discovered in the Orange Free State as well, at Jagersfontein and Koffiefontein, the former having been opened in 1878 and the latter in 1875.

Natal had also benefitted substantially from the diamond industry. The import trade of Durban had advanced from £429,000 in 1870 to £2,300,000 in 1880, declining to £1,300,000 in 1886 in consequence of the depression ; and the export trade had increased from £380,000 to £960,000. The Transvaal, however, having remained more or less isolated, had not made much progress during this period.

Gold Era (1886–1910).—The foundation of Johannesburg and the gold-mining industry was an event of great importance to South Africa, and more especially to the Transvaal. Prior to 1886 the Transvaal had almost always been involved in financial difficulties. The Cape, Orange Free State and Natal had derived considerable benefit and stimulus from the diamond industry, but the Transvaal was, as it were, an isolated community, slow to realise the agricultural and pastoral possibilities of the territory. It was the development of the mineral resources that stimulated the development of agriculture and stock farming and broke the commercial isolation and its evil consequences to which the Transvaal had been subject.

Transvaal Prior to 1886.—Prior to the gold era the Transvaal had been an insignificant pastoral state. Its development had been retarded, from the period of its inception, not only by internal discord and dissension among the different communities both in regard to political and ecclesiastical matters, but also by petty wars with the surrounding native tribes. These internal troubles and Kaffir wars had exhausted the meagre exchequer of the Government. The farmers were averse to the payment of taxation, this aversion to taxation being inherent in any semi-civilised or semi-developed state. To provide for its exigencies and meet the liabilities incurred for the purchase of ammunition, a paper currency was created and declared legal tender. By the end of 1870 the amount issued was over £70,000, and the notes were depreciated to a fourth of their nominal value. In 1873, however, President Burgers succeeded in obtaining a loan from the Cape Commercial Bank at Cape Town and redeemed the paper currency at par.

This had hardly been accomplished when the country once more drifted into war and insolvency. A native chief, Secocoeni, refused to pay taxes and molested the farmers in his neighbourhood. War was declared and the burgher forces were called out, but they were repulsed, and the failure resulted in the disorganisation and dispersion of the combined burgher forces. Discord and faction had also spread amongst the people, and the majority of the burghers

refused to pay their land and other taxes. To carry on the Government, the President and Executive borrowed money on their own personal security to the amount of £20,000, but this was soon spent and the State exchequer was empty again. The Government was incapable of enforcing its authority and executing its duties, whereupon the British Commissioner, Sir T. Shepstone, thought that circumstances had arisen to justify the annexation of the Republic, which he proclaimed British territory in 1877.

During the four years of British sovereignty there was a great deal of unrest and dissatisfaction. This led to the War of Independence in 1881, and the Transvaal once more became a republic. In the first four years of the Second Republic the prospects were by no means bright. The public revenue and the credit of the State were declining, and there was general stagnation in business and trade. Those were also years of severe depression in the other political divisions of South Africa. The gross revenue of the Republican Government declined from £328,000 in 1883-84 to £218,000 in 1885-86. The Transvaal was on the verge of bankruptcy, which would have led to further troubles and to the issue of an inconvertible paper currency, but it was helped along somewhat by the discovery and exploitation of a few small gold-bearing fields, and permanently lifted from a position of almost continuous financial stringency to that of superabundant revenue by the declaration of the Witwatersrand as a public goldfield and the exploitation of the rich mineral resources in that region.

Gold Production.—Prior to 1886 the production of gold in the Transvaal had been of minor significance only, but after the opening of the Witwatersrand mines the production increased very rapidly. By 1890 the value of the gold production had advanced to £1,869,000, by 1894 to £7,600,000, and by 1898 to £16 million.

Speculative Boom.—The depression which had prevailed all over South Africa from 1881 to 1885—the aftermath of over-speculation in diamond shares, inflation of currency and credit, etc.—was followed by a still more extensive and intensive speculative boom. The goldfields were of much greater dimensions than the diamond fields; a larger amount of foreign capital was imported, and credit facilities were considerably expanded; imports into South Africa increased rapidly again, amounting to more than £12 million in 1889, 1890 and 1891; and the State revenue went up by leaps and bounds. In the Transvaal the revenue rose from £218,000 in 1885-86 to £1 million in 1888-89 and £1½ million in 1889-90, the main sources of revenue being customs duties, prospecting and claim licences, concessions, land revenue, stamp duties, and transfer duties. In the Cape the revenue increased from £1,990,000 in

1886-87 to £2,434,000 in 1889-90, in Natal from £478,000 to £798,000, and in the Orange Free State from £186,000 to £281,000.

A stream of population had set in from all parts of the world, and the country was quickened into a new life and prosperity. The speculative boom was followed in its turn by a depression as the result of a banking crisis in 1890, when most of the local or district banks in the Cape got into financial difficulties and were absorbed by the larger banking institutions, the so-called Imperial Banks, viz., Standard Bank, African Banking Corporation, and the Bank of Africa. The banking crisis was due to over-expansion and inflation of currency and credit, over-trading and speculation in gold shares, property, etc. There were no restrictions on banks and their note issue, and in such a speculative environment the banks did not know their limits. To prevent the recurrence of this evil, the Cape Parliament passed the Colonial Banking Act in 1891, in accordance with which the banks were to deposit government securities with the Treasury to the full amount of their note issue, the notes being legal tender and redeemable in gold. In the Transvaal, on the other hand, notes could be issued to the amount of the paid-up capital, and a gold reserve of one-third was to be maintained.

After the banking crisis of 1890 there was again a period of great prosperity, culminating in a considerable inflow of capital from abroad in 1895. This was, however, succeeded by a period of severe depression following on the Jameson raid, locusts, drought, and rinderpest; and as the country was slowly emerging from this crisis, it was plunged into war in 1899.

Railways.—In the meantime, great progress had been made in railway construction. At the time of the discovery of gold on the Rand there were no railways at all in the Transvaal, or even in the Orange Free State. The gold industry immediately created an urgent need of efficient means of transportation of goods and passengers between the coast and the Rand. In the Cape Colony the railway had been extended from the coast into the interior as far as Kimberley, and in Natal as far as Pietermaritzburg, and from these railway termini, for a distance of several hundred miles to the Rand, the ox-wagon was the only available means of transportation of mining machinery and other mining requisites, building materials, and various necessities of life. The result was considerable activity in the construction of railways with a view to gaining as large a share as possible of the profits to be earned by transportation.

The Cape Government was first in the field. To provide for the construction of a railway to the Rand through the Orange Free

State, a Convention was concluded between that Republic and the Cape in 1889, in accordance with which the Cape Government undertook to construct and operate the line under certain conditions and rates laid down in schedules to the Convention. By 1892 direct railway communication was established between the Cape ports and the Rand. In the Transvaal a concession had been authorised by the Volksraad in 1885 and granted in 1887 to a private company, the Netherlands South African Railway Company, for the purpose of building a railway from the border of Portuguese East Africa to Pretoria and linking up the Rand with Delagoa Bay. This was accomplished in 1894-95. By the beginning of 1896 Durban was also brought into direct communication with the Rand by the construction of the Natal line as far as Heidelberg and its continuation by the Netherlands Company as far as Johannesburg, whereby Durban was placed on a level with the Cape ports and Delagoa Bay. In this way, within less than ten years of the proclamation of the Rand goldfield, three railway systems were competing for the profits to be earned by transporting goods and passengers to and from the gold city. The Rand became the centre of the economic activity of South Africa and the source from which a severe economic struggle emanated.

Delagoa Bay as Independent Outlet.—The completion of the railway from Johannesburg to Delagoa Bay, *via* Pretoria and Komati-poort on the Portuguese border, was the culmination of a long and disheartening struggle by the Transvaal to secure an outlet to the sea that was independent of British control and influence.

After the victory over Dingaan and the Zulus at the Battle of Blood River, the emigrant Boers had taken possession of Port Natal (Durban) and included it in their Republic of Natal. To these Boers Port Natal was a point of contact with nations other than the British, but in view of the danger involved in this contact Great Britain soon intervened, and in 1843 the district of Port Natal was proclaimed a British Colony, which was subsequently expanded from time to time, the Boers having recrossed the Drakensberg and settled in the country north of the Vaal River. The Sand River Convention of 1852 fixed the southern boundary of the territory of these emigrants along the Vaal, while the tsetse fly and malaria at that time rendered the Limpopo River the northern limit. Hemmed in between the Limpopo River in the north and the Vaal River in the South, the Transvaalers commenced to seek an outlet to the east and west. In 1868 President Pretorius claimed both banks of the Pongolo and Maputa Rivers to the sea, in Delagoa Bay, but the result was that, in the following year, the Transvaal-Portuguese frontier was marked off for the most

part along the natural boundary of the Lebombo mountains. In 1873, again, President Burgers conceived the plan of raising a loan of £500,000 in Europe for the purpose of constructing a railway to Delagoa Bay, and thus obtaining access to a port free from what he termed "the trammels of British influence." The scheme, however, proved to be a failure as he was unable to raise sufficient money.

On Cetewayo's reinstatement in Zululand, after the Zulu War of 1879, the Transvaalers endeavoured to occupy the bulk of Zululand, including St. Lucia Bay, in 1883-84. In 1884, also, representatives of the German firm whose trading post at Angra Pequena (Lüderitzbucht) had developed into the German protectorate over South-West Africa, made their appearance at St. Lucia Bay and at Port St. Johns in Pondoland. Accordingly, Great Britain annexed both of these in that same year, and Zululand in 1887, which was later on handed over with Tongaland to Natal in 1897. Attempts were moreover made by the Transvaal to purchase Delagoa Bay, and when these failed, the Transvaal sought to obtain railway communication with Kosi Bay, in Tongaland, in 1890, but it was of no avail.

On the western side attempts had also been made, from an early stage already, to seek an outlet. Here the problem was complicated by the fact that the trade routes running northwards into the heart of Africa were situated to the west of the Harts River, and that Great Britain was not prepared to see these routes fall under the control of the Republic. Under the Pretoria Convention of 1881, and again under the London Convention of 1884, the western boundary of the Transvaal was laid down, so that the Republic was confined within certain limits on the western side as well. Shortly after the London Convention the Transvaal attempted to extend its authority over the Bechuanas beyond its western border, over whom a British protectorate had been declared. This encroachment, which would have shut off the Cape Colony from the trade route to the interior of Africa, was prevented by the despatch of an expedition under Sir Charles Warren and the conversion of southern Bechuanaland into a British Crown Colony, as well as the proclamation of a British protectorate over Bechuanaland north of the Molopo, in 1885. Thus a barrier was also placed between the Transvaal and the German protectorate on the west coast.

Moreover, in 1888-89 Cecil Rhodes founded the British South Africa Company under Royal Charter for the purpose of developing the vast regions extending northwards from Bechuanaland and the Transvaal to Central Africa. In 1890 already the Company

had succeeded in taking possession of Mashonaland and laying the foundation of what is now known as Rhodesia.

In this way the Transvaal, attempting from time to time to extend its boundaries and secure an outlet to the sea with a view to becoming economically independent of British influence, came to be hemmed in on all sides by organised action on the part of Imperial or Colonial statesmen—in the north by the British South Africa Company's possessions, in the north-west by the Bechuanaland Protectorate, in the south-west by British Bechuanaland, in the south by the Orange Free State and Natal, and on the east by Portuguese East Africa. By 1890 the process had been completed, and in the meantime the rise of the gold-mining industry had even accentuated the endeavours of British statesmen to maintain the Transvaal in economic dependence upon British institutions. Economic pressure from British territories in South Africa was expected to force the Republic into a South African railway and customs union, which would again bring the political federation of South Africa within the bounds of practical politics.

Political Federation.—In the fifties already Sir George Grey had made an attempt to bring about the political federation of the Cape Colony, British Kaffraria, Natal and the Orange Free State, but without any material result. At the same time Pretorius had also aimed at the union of all the Boer Republics north of the Orange River. By 1860 the three independent republics north of the Vaal had been united under the common title "South African Republic," but the Orange Free State was not prepared to enter the union. In 1874 Lord Carnarvon revived the idea of federation, and the names of J. A. Froude, Sir Theophilus Shepstone and Sir Bartle Frere were also identified with this project during the years 1874-80. The scheme, however, failed on account of the indifference of the Molteno Ministry in the Cape, as well as the indignance of the burghers of the two Republics at British interference in Basutoland and Griqualand West. In 1877 Shepstone even attempted to force the issue by annexing the Transvaal, which regained its independence in 1881 after the failure to achieve federation. Then, in the late eighties and nineties, Cecil Rhodes made a determined effort to federate the various political divisions of South Africa, and, finding the Transvaal under Paul Kruger the most serious obstacle to the attainment of his aims, sought to subdue that Republic by means of an organised economic warfare which would bring the Transvaal into a general railway and customs union and render political federation possible.

Customs Negotiations.—In view of the inconvenience caused by the existence of divergent and competitive tariff policies in the

four main political divisions of South Africa, negotiations were set in motion during the eighties for the purpose of establishing a South African Customs Union and bringing about uniformity in tariff legislation as well as reciprocal free trade between the members of the Customs Union. The forces which gave rise to such negotiations were (1) divergences in fiscal policy, (2) the rise of special interests, agricultural, mining and commercial, (3) taxation of colonial produce by the Transvaal and retaliation by the Cape, (4) duplication, and (5) political considerations. The feeling had begun to make headway in some circles that, just as the German Zollverein (or commercial union of the German States) had been the first step towards the attainment of political union in Germany, so a South African Customs Union would break down artificial barriers and facilitate the creation of a political union in South Africa.

The first step towards the attainment of the Customs Union was the conclusion of a customs convention between the Cape and the Orange Free State in 1889, which provided for a uniform tariff on all goods imported into those territories from overseas or from other territories in South Africa, and free trade between those territories in respect of their own produce. Natal and Transvaal were not prepared at this stage to enter the customs union, the former because the tariff which was decided upon by the majority of the delegates at the customs conference was regarded as too high, and because it was feared that Natal might lose a portion of her trade with the interior if her duties were raised to the same level as those levied at the Cape ports; and the Transvaal even refused to send delegates to the customs conference, primarily because she had definitely turned her attention to Lourenco Marques, in Delagoa Bay, as the natural port and given a special concession to a private company for the construction of a railway that would link up the Transvaal with a harbour independent of the Cape and Natal and give the Republic considerable bargaining power in negotiations for a customs union. As this railway was not completed yet, President Kruger held aloof.

Prelude to the Anglo-Boer War.—At last, in 1895, when the railway from the Rand to Delagoa Bay had been completed and a favourable agreement had been made with Portugal regarding trade and transportation between the Republic and Portuguese East Africa, the Transvaal had succeeded in securing an independent outlet to the sea, after years of struggle and negotiation. From now on the economic warfare was intensified. The Transvaal Government and the Netherlands Railway Company, which had acquired the railway monopoly and largely controlled the customs

in the Transvaal, now became very important factors in the struggle for the control of the Rand and formulated an independent railway and customs policy which was detrimental to the interests of the Cape and Natal. The Transvaal railways were competing with the Cape Railways which had been extended through the Orange Free State to Vereeniging, the frontier station between the two Republics, and carried on from there to Johannesburg by the Netherlands Company; and there was every danger of hostile competition resulting from this state of affairs. In order to facilitate friendly competition and secure an adequate proportion of the profits on the railway traffic to the Rand, according to Kruger's Memoirs, the Transvaal Government proposed that the profits on the joint goods and passenger traffic should be divided in equal shares amongst the Cape, Natal and Transvaal railways. Cecil Rhodes, however, who was premier of the Cape Colony at the time, claimed 50 per cent. for the Cape, leaving 50 per cent. to be divided between the Transvaal and Natal. The Transvaal Government would not assent to this, and a severe competition for railway traffic ensued.

The Cape railways lowered the rates as far as Vereeniging, but the Netherlands Company again raised the rates on its portion of the line, running from Vereeniging to Johannesburg, in order to neutralise the reduction in rates on the other portion. Thereupon the Cape Government tried to avoid using the Transvaal railway line by unloading goods at Viljoensdrift for transportation on ox-wagons to Johannesburg, to which President Kruger replied by closing the "drifts" or fords on the Transvaal border to overseas goods imported through the Cape. Rhodes appealed to the British Government, which intervened in the matter and sent an ultimatum to the Republic, obliging Kruger to open the "drifts" again.

It now became clear that it was not an easy matter to subdue the Transvaal by means of economic warfare and draw her into a railway or customs union, and that it might yet become necessary to resort to the force of arms. The "drift" episode had provided the Cape and Imperial Governments with a legitimate cause for war, but Kruger had yielded promptly. Recourse was then taken to the grievances of "Uitlanders" (foreigners) on the Rand. The main grievance was the exclusion of the British and other foreign population of the Rand from the rights of citizenship, as the Republican Government had raised the qualifications for the franchise in order to prevent burghers by birth from being outvoted by the large number of "Uitlanders," the majority of whom had no intention of residing in the Transvaal for the number of years required to admit them to the franchise. They also objected to

the system of education, the high price of dynamite under the monopoly system, and their exclusion from the civil service.

A Reform Association was organised by some of the discontented "Uitlanders" in 1895, and arms and ammunition were smuggled into the Transvaal. This Reform movement on the Rand culminated in the Jameson Raid at the end of December, 1895, when Dr. Jameson invaded the Transvaal from the Rhodesian border with an armed force in an attempt to precipitate a revolution and invoke British intervention; but the raid was promptly suppressed and the tragic event postponed. After a time the "Uitlanders" resumed their agitation, especially when Sir Alfred Milner was appointed High Commissioner and Governor of the Cape in 1897. In that year also, as a result of the suspicions engendered by the Jameson Raid, the Orange Free State assumed control of the railways passing through its territory and originally constructed and operated by the Cape Government—a contingency provided for in the Convention with the Cape in 1889. In 1898 a Customs Conference was again convened, when Natal entered the Customs Union, but the Transvaal held aloof again as Delagoa Bay had been converted into a fairly convenient harbour and rendered the Republic, to a large extent, independent of the Cape and Natal ports, and as it was disgusted after the "drift" episode, and perhaps suspicious of commercial union after the Jameson Raid.

It was now just a matter of time for the accumulation of grievances and suspicions to explode; and when, in 1899, Chamberlain determined to insist upon the grant of certain political rights to the British residents in the Transvaal and the Imperial Government even despatched troops to South Africa, the Transvaal, assisted by the Orange Free State, elected to submit her cause to the arbitrament of war.

In this way the gold industry had engendered keen economic competition amongst the various political divisions of South Africa and given rise to a severe economic struggle for the control of the Rand, which was destined, through the agency of side issues, to culminate in the Anglo-Boer War of 1899-1902.

Anglo-Boer War (1899-1902).—From the economic as well as the political and social points of view, the Boer War proved to be an event of unusual importance in the history of South Africa. It did indeed give rise to a considerable destruction of farm buildings, crops and live stock in the Transvaal and the Orange Free State, and to a smaller extent in some parts of the Cape and Natal, and brought about a serious disorganisation of agriculture and

stock farming in those regions ; and it occasioned an almost complete cessation of gold-mining operations in the Transvaal, the value of the gold production declining from £16,241,000 in 1898 to £1,481,000 in 1900 and £1,097,000 in 1901. But, with the exception of a number of farmers who were permanently ruined by the ravages of the war and joined the ranks of the poor whites, the setback was only of a temporary nature, to be followed by an even more rapid development than in the years preceding the War.

In the Cape Colony and Natal, on the other hand, the expenditure of large sums of money by the Imperial Government in connection with military operations against the two Republics created a great deal of prosperity, especially amongst the farming and trading communities. The war cost Great Britain about £250 million, of which a large proportion was spent in those two colonies in the purchase of agricultural and pastoral produce for the troops, as a result of which prices advanced to a high level and stimulated production. Within a few months from the commencement of hostilities, the number of British soldiers operating in South Africa had advanced to 130,000, and subsequently to 200,000.

In view of the temporary cessation of gold mining and the increased local demand for all kinds of farm produce, the exports from Cape and Natal ports declined considerably, from £25,669,000 in 1898 to £8,564,000 in 1900 and £12,784,000 in 1901. This decline, however, did not seriously affect the purchasing power abroad, since the large remittances of funds by the Imperial Government from London to South Africa served to more than offset the reduction in the value of the exports. The result was that the imports increased from £21,945,000 in 1898 to £23,073,000 in 1900 and £30,832,000 in 1901, a portion of which represented the importation of requirements of the military forces.

The increase in imports and the greater prosperity prevailing in the Cape and Natal during the Boer War enhanced the public revenues. The revenue of the Cape advanced from £3,416,000 in 1898-9 to £4,082,000 in 1900-1 and £4,780,000 in 1901-2, and that of Natal from £1,100,000 to £1,375,000. Railway revenue was also enhanced by the increase in railway traffic resulting from the increase in the volume of trade and the transport of troops and war materials.

The Imperial Government financed its war operations largely by means of loans, and to a lesser extent by taxes. The national debt of Great Britain was increased by about £160 million in consequence of the Boer War, and the income tax was raised by several pence in the £ with a view to defraying a part of the war expenditure out of taxation. The Transvaal and the Orange Free State,

on the other hand, financed their operations mainly in the form of commandeering provisions, horses, wagons, ammunition, etc.

Post-War Reconstruction.—Even before the close of the Boer War the attention of the Imperial military authorities had been directed to the reconstruction of the economic, social and political fabric of the conquered territory. The foundations of reconstruction and repatriation were laid by the military authorities. Military dairy, stock preservation, and agricultural farms were organised between the Rand and Potchefstroom, and in the Pretoria district; veterinary surgeons were employed for the purpose of combating rinderpest and other stock diseases; and the equipments of the Civil Supplies and the Burgher Camps simplified the work of repatriating the surrendered Boers by providing transport, provisions, and truckage and assisting in land settlement schemes.

This preparatory work greatly facilitated the erection of the actual structure by the civil authorities, under the direction of Lord Milner, who was formally appointed to the office of Governor of the Transvaal and the Orange Free State (renamed Orange River Colony), in August, 1901, but did not actually assume the Governorship until June, 1902. In the intervening year, however, he had devised the processes, and in part created the administrative machinery, of the reconstruction. A temporary Repatriation Department was instituted for the purpose of resettling the burgher population on the land formerly owned or occupied by them. More than forty repatriation depôts were established as distributing centres, each in charge of a superintendent with the staff necessary to enable him to carry out the duties devolving on his particular centre. In conjunction with the working organisation of the department, arrangements were made for the appointment of Advisory Committees in each magisterial district.

These Committees were to inquire into the needs of the people in their respective districts and to advise the Repatriation Department with regard to the quantity of foodstuffs, building materials, agricultural implements, seed, transport animals, and vehicles which they considered should be issued to the individual farmers.

Moreover, legislation was introduced in 1902, in the Transvaal and the Orange River Colony, in order to provide for the placing of settlers on the land. Land was allotted to settlers on lease for five years with the option of purchase in equal instalments over thirty years, and advances of an average amount of £300 were made to them. A Department of Agriculture was also created for the purpose of promoting the development and improvement of agriculture and stock farming, and provision was made for

experimental and stud farms at Potchefstroom, Standerton, Ermelo, etc. Suitable breeds of live stock were imported into the two new colonies from the Cape and Natal or from abroad, and their progeny was distributed amongst the farmers.

The development of railways was likewise regarded as an essential feature in the economic reconstruction of the late republics. The railways were united and administered as a joint concern by the Inter-Colonial Council under the name of the Central South African Railways. A number of new lines were constructed with a view to bringing the main agricultural districts in both colonies into direct railway communication with the Rand and other profitable markets. By 1907 the railway mileage had been extended to 2,405 miles, as compared with 1,331 in 1902, and a considerable improvement had been brought about in the permanent way, the rolling-stock resources, the general equipment, and the efficiency of administration and operation.

The process of repatriation and reconstruction was carried out with comparative smoothness and rapidity. By 1905 the reconstruction of the economic fabric of the Transvaal and the Orange River Colony had been completed. The agricultural and pastoral industry had been reconstructed and reorganised and was making rapid progress; the gold-mining industry had been set on its feet again and was advancing by leaps and bounds, owing to the importation of indentured Chinese labour, the value of the gold production having risen from £7,297,000 in 1902 to £20,848,000 in 1905 and £27,400,000 in 1907; the railways had been remodelled, extended and improved in working efficiency; and the finances of the two colonies had been placed on a sound footing and brought into proper relation again.

This rapid and complete reconstruction had been rendered possible by a loan of £35,000,000 to the Transvaal and Orange River Colony in 1903, called the Development Loan and guaranteed by the Imperial Government. Of this loan £5 million was appropriated for repatriation and compensation, the sum of £13,520,000 for the acquisition of the railways, £8 million for the construction and improvement of railways and other public works, £2½ million for land settlement, etc. In addition, the sum of £3 million, which had been granted by the Imperial Government in accordance with the Terms of Surrender, was used for repatriation purposes.

Period of Depression.—The Boer War was indeed followed by a boom, in accordance with expectations, but the boom was destined to be of shorter duration than was generally expected. The conquest of the Transvaal and the establishment of a Crown Colony Government, under Lord Milner, brightened the prospects of a

rapid expansion of the gold industry. Capitalist investors and the business community were fully confident that the new Government would create a favourable atmosphere for the development of the gold industry, which would again promote the development of the whole of South Africa as an economic entity. The Development Loan of £35,000,000 and the reconstruction schemes further contributed to speed up economic activity and stimulate a speculative environment.

The result of this was a considerable influx of foreign capital and immigrants, undue increase of imports, inflation of credit, enhancement of revenue, etc. In 1903 more than 70,000 persons landed at Cape and Natal ports; imports advanced from £30,832,000 in 1901 to £45,427,000 in 1902 and £48,761,000 in 1903, and exports from £12,784,000 to £19,754,000 and £24,949,000; the revenue of the Cape increased from £4,780,000 in 1901-2 to £5,798,000 in 1902-3, that of Natal from £1,375,000 in 1901-2 to £2,113,000 in 1903-4; in the Transvaal from £4,071,000 in 1902-3 to £5,357,000 in 1903-4 and in the O.R.C. from £560,000 to £820,000 respectively; and the total bank deposits, which had already been enhanced from £25,153,000 in 1899 to £32,779,000 in 1901, were further increased to £47,222,000 in 1902.

The boom, however, soon reached its height where it could not be maintained for any length of time in view of the fact that the progress of the gold industry was seriously retarded by the lack of an adequate supply of unskilled labour. There was an acute shortage of native African labour after the Boer War, and although this difficulty was subsequently removed to a great extent by the importation of Chinese coolies beginning in 1904, the expansion of the gold industry did not come up to the general expectation. During the war production and trade had been increased in the Cape and Natal in view of the enhanced demand for foodstuffs and other commodities, and immediately after the war the mechanism of production and trade was further expanded and based on the expected expansion and prosperity of the gold and other industries. But when the expectations were not fully realised, a reaction set in and a long period of depression followed—the aftermath of over-production and over-expansion, inflation of currency and credit, speculation, etc. The lowest point of the depression was reached in 1907 and 1908 in consequence of the financial panic in Europe and America in 1907 and its effects on South African trade and the diamond industry, as well as the drought of 1908.

Imports declined from £48,761,000 in 1903 to £24,366,000 in 1908; the revenue of the Cape declined from £5,798,000 in 1902-3 to £3,925,000 in 1907-8, and that of Natal from £2,113,000 in

1903-4 to £1,667,000 in 1907-8; and bank deposits decreased from £47,222,000 in 1903 to £37,791,000 in 1907.

Beginning in 1908, a rapid recovery took place. The shortage of native labour had been removed out of the way, and the gold industry was advancing by leaps and bounds; the diamond industry recovered quickly and resumed its progress again; the benefits of the construction of branch railway lines in many parts of South Africa were being increasingly felt and promoted the development of farming enterprises; in fact, there was a general revival of economic activity throughout South Africa.

Prelude to the Union.—In the meantime steps had been taken once more to bring about the union of the four main political divisions of South Africa, viz., the Cape, Transvaal, Orange River Colony, and Natal. This was the fourth attempt to federate South Africa and was crowned with success as a result of the operation of the following forces:—

(1) All of those four political divisions of South Africa were now British colonies, and consequently the task of unification was rendered very much easier. In the Transvaal, which had always proved to be the most serious obstacle, the economic and political organisation came to be based largely on British institutions and traditions in consequence of Crown Colony Government (1902-7). In his capacity as High Commissioner and Governor of the two Crown Colonies, Lord Milner had sought to promote every form of inter-state action amongst the separate colonies. Especially in matters of common concern and vital economic importance, such as the customs and railways, did he succeed in bringing about concerted action amongst the various South African Governments, thereby preparing the way for political union.

(2) The ideal of a Customs Union, embracing all the territories in South Africa, had at last been realised in 1903. A Customs Conference had been convened at Bloemfontein in March, 1903, when it was resolved to establish a general South African Customs Union, comprising the Cape Colony, Transvaal, Natal, Orange River Colony, Southern Rhodesia, and the native territories, thereby completing the process of the gradual commercial federation of South Africa and securing the enactment of a common tariff against the outside world.

(3) Lord Milner had also taken advantage of every opportunity to terminate or minimise the injurious competition between the various railway systems in South Africa for the trade of the Rand. The railways of the Transvaal and the Orange River Colony were united under one management, the Inter-Colonial Council, and administered as a joint concern; and agreements were concluded

with the Cape and Natal Governments at the Railway Rates Conference of 1905. This movement of closer railway union contributed in no small way toward the attainment of political union.

(4) The establishment of political union was also prompted, in no slight degree, by the economies likely to be effected by the unification of the railways, government departments and civil services of the four colonies—the substitution of one for four administrative systems.

Various other factors have been enumerated, such as the consolidation of the public debts with the consequent improvement in South African credit, the increased power of self-defence and self-government, greater stability and security which would attract capital and promote enterprise, greater ability to deal with native problems, etc.

In this way the four British colonies of the Cape of Good Hope, Transvaal, Natal and Orange River Colony (renamed Orange Free State) came to be united on May 31, 1910, in a legislative union under one central government under the name of the Union of South Africa.¹

Period of Economic Reorganisation (1910–).—The period from 1886 to 1910 was called the “Gold Era” since the pace of the economic development of South Africa as a whole was set, in a considerable degree, by the gold industry, just as during the period from 1870 to 1886 it was set mainly by the diamond industry. By 1910, however, the exploitation of the gold and diamond resources had been carried almost to its maximum limit, and the mining industry became a more or less stationary factor in our economic life. In 1910 the value of gold and diamonds produced in the Union amounted to £40,162,000, as compared with £45,218,000 in 1916 and £45,933,000 in 1923, while the number of European employees in the gold mines declined from 24,757 in 1910 to 19,354 in April, 1924. On the other hand, there has been a remarkable expansion, since 1910, in the agricultural, pastoral, and manufacturing industries. The mining industry had indeed afforded the stimulus and set the forces of economic progress in motion, and to that extent the country is heavily indebted to it, but the stage has been reached where the other industries are becoming

¹ As the official designation indicates, it is a Union as distinguished from a Federation; and the unitary principle finds its most complete fulfilment in connection with finance and railways. All the railways, harbours, and ports belonging to the Colonies, and all revenues, from whatever source, over which the several Colonies had power of appropriation at the establishment of the Union, were vested in the Union or Central Government; and the financial relations between the Union and Provincial Governments were to be determined from time to time by the Union Parliament.

more and more independent of the mining industry and developing on their own initiative.

The mining industry still assumes an important rôle in our economic organisation, but relative to the other industries it is diminishing in importance. Whereas the gold and diamond-mining industries have reached their highest limits, the agricultural, pastoral and manufacturing industries have only within recent years come to fully realise their possibilities.

In general a gradual reorganisation of our economic structure is taking place, and in this process the State has been taking a fairly active part, while there are indications that the State will be obliged to take an even more active part in the future.

The Date of Union a Landmark.—The establishment of the Union of South Africa in 1910, just as the establishment of the German Empire and the unification of Italy, has proved to be a political event of great economic significance. The date of Union may be regarded as an important landmark in the economic development of South Africa, for several reasons.

In the first place, a uniform national policy was adopted in the place of four distinct policies. A number of special commissions were appointed to investigate a variety of conditions and problems, as a result of which a good deal of consolidating legislation was passed, although in some phases of our economic activity there has been an overwhelming proportion of patchwork and a conspicuous absence of any clearly defined policy. However, the environment was rendered favourable to economic development to the extent that uniformity and solidarity were achieved.

Secondly, all the railways, harbours and ports belonging to the four colonies at the establishment of the Union were transferred to the Union Government and were to be administered, in accordance with the policy laid down in the Union Constitution, in the interests of the economic development of South Africa as a whole. The railways and harbours were to be operated in accordance with business principles, due regard being had to agricultural and industrial development within the Union and to the settlement of an agricultural and industrial population in the inland portions of all Provinces of the Union. With a view to facilitating the achievement of these aims, the railways were no longer to be used for purposes of taxation, as had been the case in all four Colonies prior to the Union. The total earnings were to be no more than sufficient to meet all necessary expenses for operation, maintenance, depreciation, and interest on capital. Accordingly, the railway rates and fares were substantially reduced and preferential rates instituted in respect of South African produce; and an extensive

programme of railway construction was embarked upon, special attention being given to branch lines for the purpose of opening up promising agricultural and pastoral areas.

Thirdly, the Union Department of Agriculture was better and more fully equipped and organised than the Colonial Departments. Greater co-operation and co-ordination was established amongst the various agencies and institutions already in existence, and the system of agricultural research, experimentation and education was extended and adapted so as to conform to the varying requirements of different parts of South Africa. Moreover, the scope of operations in connection with land settlement, irrigation, forestry and agricultural credit—activities which are intimately connected with the advancement of agriculture and stock farming—was considerably extended.

Fourthly, greater provision was made for the encouragement and development of industries other than agricultural, pastoral and mining. A Department of Commerce and Industries was created in 1910, the industrial section of which was subsequently merged into the Department of Mines and became, after 1916, the Division of Industries in the Department of Mines and Industries. This was the first official recognition of the importance which the manufacturing industry was assuming, and from this time onwards the Government began to devote more attention to the fostering of local industries. An Industries Advisory Board was created, followed by the appointment of a Scientific and Technical Committee, the two being subsequently amalgamated under the title of the Advisory Board of Industry and Science. Moreover, on the basis of the report of the Commission on the Industries and Trade of the Union, which had been appointed by the Union Government in 1910, a Customs Tariff Act was passed in 1914 which provided for semi-protective duties in respect of an appreciable number of articles.

Influence of the Great War.—During the first four years of the Union (1910-14) the foundations of the new national policy of economic development had been laid down, and substantial progress was being made. The rivalry between the Colonial Governments had produced considerable friction and undue development in some phases of economic life to the obvious detriment of others. Now a broad policy of general economic development was followed, which was making a good deal of headway when it was violently disturbed by the outbreak of the Great War in Europe in July, 1914, and of the South African Rebellion two months afterwards. Civil war raged for two months, the rebellion being virtually suppressed in December, 1914; and immediately after

the conclusion of domestic hostilities the conquest of German South-West Africa was undertaken in earnest by the Union Government and completed by the beginning of July, 1915, when the German troops surrendered and the territory was proclaimed a military protectorate.

The outbreak of the European War, followed by the South African Rebellion and the German-South-West-African campaign, had occasioned a serious disturbance in trade, industry and revenue. Imports declined from £41,829,000 in 1913 to £35,355,000 in 1914 and £31,811,000 in 1915, and exports from £66,569,000 to £39,934,000 and £34,818,000 respectively. The revenue of the Union declined from £15,805,000 in 1913-14 to £14,265,000 in 1914-15, causing a deficit of almost £2 million. Moreover, an amount of about £20 million was appropriated from loan funds, during the period from August, 1914, to March, 1916, for the purpose of defraying expenses incurred in connection with the rebellion and the South-West African campaign. This meant an increase of about £1 million in the annual interest charge to be met out of taxation.

Subsequent to 1915, however, a rapid revival of trade and industry set in. The World War now afforded an abnormal stimulus to farming and manufacturing in South Africa, several factors combining to bring about this favourable state of affairs. In the first place, there was a considerable rise in prices and an abnormal demand for foodstuffs and raw materials in Europe. Secondly, since the nations of Europe were at war and America was hard at work producing supplies for the belligerents, the Union was unable to import many articles not ordinarily produced locally or not produced in sufficient quantities, whereupon local producers and manufacturers were induced to take advantage of the opportunity created by the diminution of foreign competition and the rise in prices. Thirdly, banking and credit facilities were considerably expanded and stimulated increased production. Fourthly, the natural protection, which our industries always enjoy as a result of our being situated thousands of miles from Europe and America, was increased by the rise in freight, insurance, and other import charges. And finally, the customs duties were raised in several instances for the sake of providing an increased revenue to cover the increased expenditure.

In consequence of the combined operation of all these factors, there was a considerable expansion of agriculture and stock farming and an unprecedented development of manufacturing enterprises in South Africa subsequent to 1915. Many articles of agricultural and pastoral produce, such as meat, ham and bacon, butter and

cheese, lard, eggs, dried fruit, sugar, Turkish tobacco, etc., which were usually imported in fairly large quantities prior to the war, were produced on a larger scale and soon exceeded local consumption, whereupon an appreciable export trade was developed in almost all those cases. The production of maize, wheat, wine and brandy, fruit, cotton, etc., was also substantially increased. Moreover, the existing industrial institutions were extended and a large number of new factories came into existence. The manufacturing industry made exceedingly rapid progress. For example, from £17 million in 1911 the gross value of manufactures rose to £40 million in 1915-16 and £98 million in 1920-21. Many new industries came to be firmly established in the Union and gave employment to thousands of Europeans as well as coloured.

Exports rose from the low level of £34,818,000 in 1915 to £91,575,000 in 1917 and the record of £106,403,000 in 1919, and imports from £31,811,000 in 1915 to £50,791,000 in 1919 and the record of £100,827,000 in 1920. To a large extent this increase in the import and export trade was due to inflated values. As in other countries directly or indirectly concerned with the War, there was a considerable degree of inflation of currency and credit in the Union. The notes of South African banks in circulation advanced from £2,404,000 in 1914 to £4,656,000 in 1917 and £9,469,000 in 1920, and deposits from £45,397,000 to £64,772,000 and £102,332,000.

By the middle of 1920, as in Europe and America, the peak of production had been reached. The producers of foodstuffs, raw materials, gold and diamonds, as well as the traders and middlemen, were in the zenith of their prosperity and extended their operations recklessly. Prices, wages, profits, dividends, interest, etc., were unusually high, and money and credit were easily obtained and speculation encouraged, in the absence of proper State supervision and control of banking institutions. Taxes had likewise been raised considerably by the inflation and the spirit of expansion, in addition to the interest charge on the war debt and military pensions. The unproductive debt had been increased from £36 million in 1910 to about £68 million in 1920, and the interest on the unproductive debt from £1,182,000 in 1911-12 to £2,485,000 in 1919-20. Salaries and wages had been forced upwards in consequence of the rise in the cost of living, Government departments had expanded and the number of civil servants had swollen, and the higher prices of all requisites and materials purchased by the State had helped to further increase public expenditure. Union expenditure had risen from £16,493,000 in 1913-14 to £21,322,000 in 1918-19 and £30,076,000 in 1920-21, and

Provincial expenditure from £3,324,000 to £8,417,000. As a result of this, existing taxes had been considerably extended and raised, and a large number of new taxes had been introduced by the Union and Provincial Governments. Moreover, railway rates and fares had been raised on an average by about 50 per cent. in view of the higher cost of operation.

Depression (1920—).—As has happened over and over again in the history of South Africa as of other countries, the inflation and prosperity of the war and post-war period (1915-20) was followed by a severe economic depression—the aftermath of over-production and over-expansion, inflation of currency and credit, speculation, etc. The causes of this depression were, in the main, similar to those of other South African depressions, as also the results—falling prices, dwindling profits, heavy losses, bankruptcies, unemployment, wage reductions and strikes organised by employees with a view to preventing such from taking place to the full extent, etc.

Imports declined from £100,827,000 in 1920 to £51,413,000 in 1922, rising to £57,815,000 in 1923; and exports declined from £106,403,000 in 1919 to £64,979,000 in 1922, rising to £78,326,000 in 1923. Union revenue declined from £29,676,000 in 1920-21 to £27,234,515 in 1922-23 in spite of increased taxation, and bank deposits from £102,332,000 in 1920 to £83,798,000 in 1922 and £77,765,000 at the end of 1923.

The process of credit and financial reconstruction of industrial and commercial undertakings has been practically completed, and there are signs of a fairly general, though gradual, revival of trade, industry and agriculture. The full revival of economic activity as a whole has been delayed by the continuance of financial chaos and depression on the Continent of Europe, and has received a severe setback from the ravages of drought and locusts over large areas of the Union during the latter part of 1923. The occurrence of periodic droughts, floods, or hailstorms, and periodic visitations of locusts and other insect pests, livestock diseases, and other natural disabilities have throughout the history of South Africa been instrumental in prolonging depressions originally caused by the working of economic forces.

Industrial Structure of Union.—In conclusion, the following statistics concerning the relative economic importance of the three main elements in our industrial structure, viz., farming, mining, and manufacturing, may be presented in tabular form by way of illustration of the present stage of our economic development.

Description.			Farming.	Mining.	Manufacturing.
Value of Production*	1915-16	£	—	43,531,000	18,119,000
	1917-18	£	70,779,000	52,260,000	25,875,000
	1919-20	£	110,936,000	56,959,000	39,063,000
	1921-22	£	65,768,000	54,268,000	36,623,000
Number of Employees			1918.	1921.	1921-22.
	{	European	166,000†	33,000	60,000
	{	Coloured	433,000†	258,000	110,000
Wages (1921)	{	European	£ —	13,259,000	14,777,000
	{	Coloured	£ —	7,665,000	5,353,000

* The value of the agricultural and pastoral production is based upon the average wholesale or open market prices in the Union in each year, and the value of the manufacturing production represents the value added in the process of manufacture.

† Including farmers, farm managers, overseers, "bywoners," and ordinary agricultural labourers—in other words, all those who are actively engaged in farming operations and primarily dependent thereon for their means of living.

‡ Excluding natives engaged in agriculture and stock farming in native reserves and locations.

CHAPTER 3.

GROWTH AND DISTRIBUTION OF POPULATION.

Cape Colony.—At the time of the permanent British occupation of the Cape, in 1806, the total population within the boundaries of the Colony, as constituted then, numbered 73,633, of whom 26,720 were of European descent, 29,256 were slaves, and 17,657 Hottentots. With the exception of the soldiers and officials, the European inhabitants were almost entirely the descendants of the early Dutch, French and German settlers, most of whom had arrived at the Cape during the period from 1670 to 1690. Dutch blood predominated and comprised, according to the calculations of Dr. Colenbrander, no less than 50 per cent. of the total, as compared with 27 per cent. German and 17 per cent. French blood.

Those Dutch, French and German settlers constituted the parent stock of the so-called Boer or Afrikaner element in the population of South Africa. At an early stage already these three races were moulded together in one—the Afrikaner race, which, as the name indicates, is peculiar to South Africa. This race was produced by the close interbreeding of a very small number of progenitors, from whom nearly one-half of the total white population at present in the Union has sprung, as the result of a prolific rate of increase. The process of racial amalgamation, in conjunction with the circumstances underlying the emigration from Europe of a large proportion of the original stock, served to sever the ties which ordinarily bind colonists to their mother countries, and led to the evolution of a completely South-Africanised race, with no particular sentimental or intellectual ties to any other country in the world.

The slave population represented mainly the descendants of the West and East African, Madagascar and Malay slaves who had been imported, from time to time, since the days of Van Riebeeck, in order to provide the colonists with labourers in view of the scarcity of labour for hire in a new colony with an abundance of cheap land; but it also included a fairly large number of slaves recently imported, although restrictions had occasionally been imposed upon the importation of slaves, and, to a certain extent, the offspring of Hottentots and half-castes bonded in slavery.

The Hottentots were the aboriginal inhabitants of the country, but had ceased to exist as an independent race within the boundaries

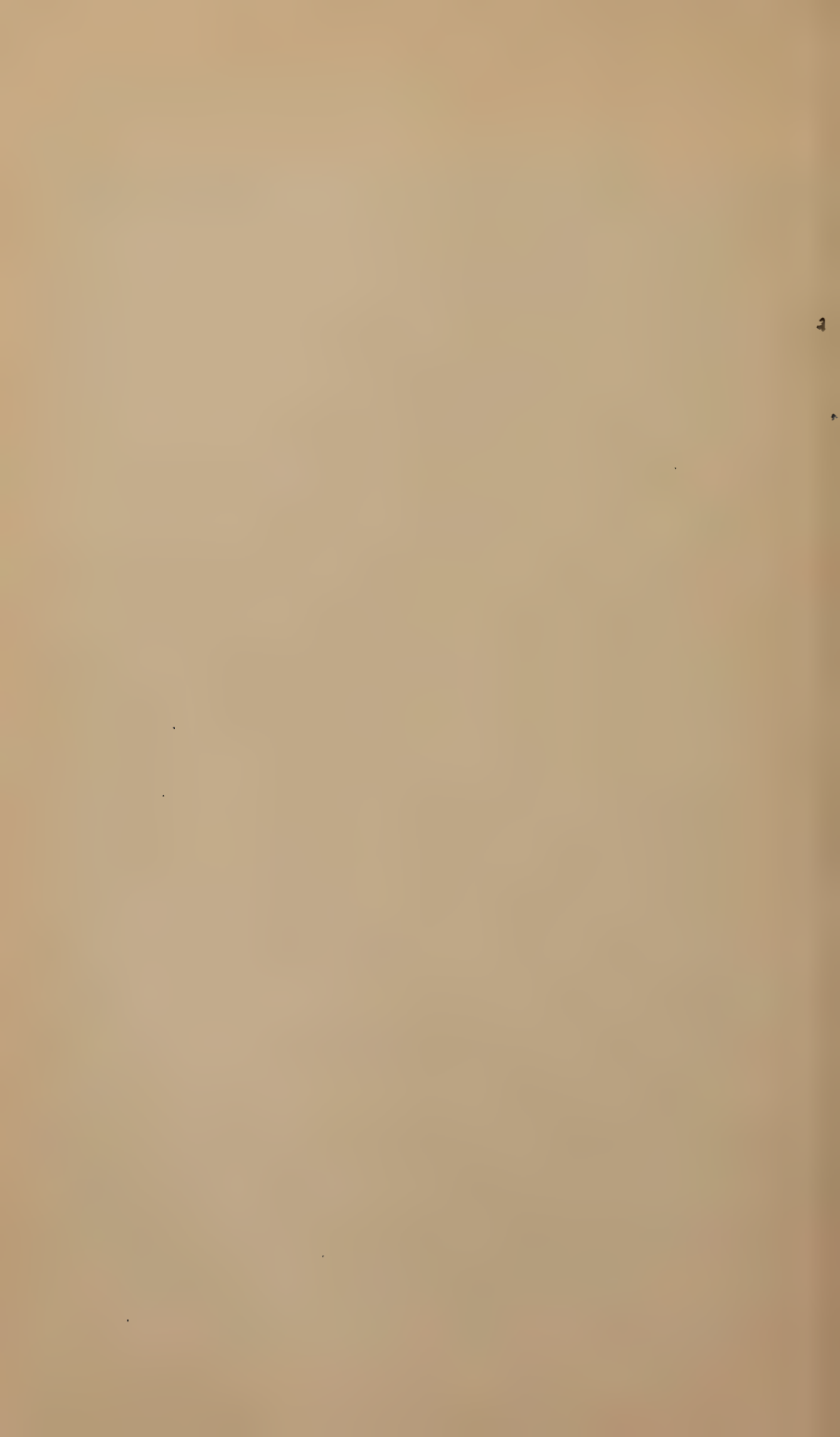


— Railways in Operation
--- Railways Projected

30 25 20 15 10

30 25 20 15 10

30 25 20 15 10



of the Colony. Various factors had combined to impoverish, disintegrate, and disperse the Hottentot clans all over the Colony as herdsmen to the colonists, or in small communities based on a pastoral existence, with comparative freedom from external interference. Many of the Hottentots, however, had no fixed place of abode and wandered at will about the country as vagrants, increasing to such an extent that it was deemed necessary in 1809 to prohibit vagrancy on the part of Hottentots.

The classification of the population into Europeans, slaves, and Hottentots continued until the abolition of slavery in 1834. As the result of systematic British immigration and the abolition of the slave-trade through the medium of British ships in 1807, the European population increased much more rapidly than the number of slaves or Hottentots. In 1806 the Europeans had constituted slightly more than one-third of the total population of the Cape Colony, whereas by 1832 they represented more than one-half of the inhabitants, as illustrated by the following table of statistics of the population prior to the abolition of slavery.

Population of the Cape Colony, 1806-32.

Year.	Europeans.	Slaves.	Hottentots.	Total.
1806	26,720	29,256	17,657	73,633
1813	31,868	30,319	20,186	82,373
1820	43,097	32,049	30,460	105,606
1832	66,000	33,000	30,000	129,000

In 1806 there were practically no permanent British residents in the Colony, but several thousand British officials and soldiers were stationed there on the surrender of the Cape to Great Britain. Subsequent to 1806, however, small parties of English and Scotch emigrants began to arrive in the Colony, and sometimes of other nationalities as well. For example, in 1815 it was reported that 46 immigrants settled at the Cape, in 1816 85, in 1817 419, of whom about 200 were Scotch mechanics and labourers brought out on the initiative of Moodie, in 1818 230, and in 1819 429. The great majority of these immigrants were of British descent.

In 1820-21, in view of state-aided emigration from Great Britain in order to relieve unemployment, there was an important accession to the Colony's population in the arrival of about five or six thousand British emigrants. A few detached parties were distributed in the Western districts of the Cape, and the Scotch settlers under Pringle were located on the Bavarian's River, in the Somerset East

district ; but the main body, numbering about 3,800, were settled on the land between the Bushman and Fish Rivers, which was named Albany. These settlers, many of whom were obliged by adverse circumstances to abandon their farms and seek other occupations, founded, or at any rate developed, Port Elizabeth and Grahamstown, and to them and their descendants is to be attributed the present predominance of the British nationality in the Eastern districts of the Cape.

On a smaller scale state-aided emigration from Great Britain and Ireland to the Cape was carried on until 1823, when the British Government decided to abandon that policy ; but small parties of British traders, artisans, clergymen and missionaries continued to emigrate on their own account to the Cape. Every year one or two hundred arrived in the Colony, varying from 114 in 1825 to 204 in 1830 and 196 in 1832. Moreover, civil servants were sent out from England from time to time, many of whom remained at the Cape after the term of their service had expired. Some of the time-expired soldiers likewise settled in the Colony on receiving their discharge.

Thus, as the result of immigration and the natural increase of the settled population, which was so prolific that it doubled in number every quarter of a century, the European population of the Cape advanced from 26,720 in 1806 to 66,000 in 1832.

Population of Cape (1832-1921).—The following table shows the growth of the population of the Cape since 1832 :—

Population of the Cape (1832-1921¹).

Year.	Europeans.	Coloured.	Total.
1832	66,000	63,000	129,000
1854	140,000	210,000	350,000
1865	181,592	314,789	1,496,381
1891	376,987	1,150,237	1,527,224
1911	582,377	1,982,588	2,564,965
1921	650,609	2,132,110	2,782,719

¹ Since 1865 regular and systematic population censuses have been taken, with the result that the statistics of population are much more reliable than prior to that date.

The European population of the Cape has increased ten-fold since 1832, partly due to immigration but mainly to the natural increase of births over deaths. At certain times the growth of the population of this Colony was held in check by the emigration of large numbers of Europeans to other parts of South Africa. At

the time of the Great Trek (1836-37) about seven or eight thousand colonists emigrated from the eastern districts of the Cape into the interior ; and, after the discovery of gold in the Transvaal and the rise of Johannesburg, several thousands joined the rush to the Republic. Even in recent years a steady stream of emigrants has flowed from the Cape to the Transvaal.

To compensate for the loss of the large number of colonists through the Great Trek, efforts had been made, shortly after that event, to obtain emigrants from Europe. The result of these efforts was that about 5,000 artisans and labourers emigrated from Great Britain and Ireland to the Cape, where they soon prospered in their respective trades. A few hundred children were also sent out by the Children's Friend Society ; and a number of soldiers, who had served their time, settled in the Colony.

At this time the hostile Kaffirs on the eastern border of the Colony were again causing a considerable amount of anxiety amongst the frontier farmers, who were subjected to frequent invasions and stock thefts. In spite of six Kaffir Wars they remained a perpetual menace to the prosperity and welfare of the Colony. In 1846 the Seventh Kaffir War broke out, and heavy losses were sustained as usual. The authorities now decided to take more definite measures with a view to eliminating this menace.

The first step was, in accordance with the proposals of Sir Peregrine Maitland, to locate inside the eastern border of the Colony, which was at that time the Keiskamma River, a large number of Fingoes who had not taken part in the hostilities, for the defence of the frontier line and the strengthening of its weak points. In this way the coloured population of the Colony was increased by the settlement of thousands of Fingoes on the land between the Fish and Keiskamma Rivers.

The second step was to establish European settlers in British Kaffraria (*i.e.*, the Kaffir territories on the other side of the Keiskamma River as far as the Great Kei River), which had at length been declared a British dependency. In 1857 about 4,000 soldiers,² who had fought in the Anglo-German Legion in the Crimean War, were established on farms in British Kaffraria ; and in 1858-59 they were reinforced by the introduction of about 2,300 agricultural immigrants from North Germany. A number of female immigrants were also procured from abroad to serve as wives for the soldier-farmers. These German settlers, together with a small number of farmers from the Cape Colony to whom land had been

² In 1858 about 1,000 of the German Legionaries were sent away to India by Sir George Grey.

granted on condition of their rendering military service against the Kaffirs, colonised British Kaffraria and laid the foundations of Kingwilliamstown and East London, the important centres of trade and shipping in that part of South Africa. In 1859 the population of British Kaffraria was reported to consist of 5,895 Europeans and 53,063 Kaffirs (including Fingoes). In 1865 British Kaffraria was annexed to the Cape Colony, and so the Kei River became the boundary of the Colony.

The final step was to annex all the native territories which are to-day comprised within the Cape Province. The Transkei was annexed in 1875, Griqualand East in 1876, Griqualand West in 1880, Tembuland in 1885, Pondoland in 1894, and British Bechuana-land in 1895. The annexation of these areas, which were thickly populated by natives, considerably affected the numbers of the coloured population of the Cape Colony. From 314,789 in 1865 the number of the coloured inhabitants of the Colony advanced to 1,150,237 in 1891 and 1,982,588 in 1911.

As a result of the annexation of the aforementioned territories, the coloured inhabitants of the Cape consist mainly of Bantus, commonly known as Kaffirs or natives. Of the coloured population of 2,132,110 in 1921, no less than 1,640,162 were of the Bantu race, and of these about 950,000 were located in the Transkeian Territories, *i.e.*, the territories on the other side of the Kei River as far as the Natal border, such as Tembuland, Pondoland, Transkei, Griqualand East, Mount Fletcher, etc. There were 7,696 Asiatics and 481,252 mixed and other coloured. The latter are partly descendants of the former slaves, partly sprung from the intercourse of these and of white men with the aborigines, and partly pure-bred Bushmen and Hottentots, such as the Namaquas and Korannas.

The European population of the Cape increased from 66,000 in 1832 to 181,592 in 1865, 376,987 in 1891, and 650,609 in 1921. Besides the German settlers who had been established on farms in British Kaffraria in 1857-59, 6,343 British emigrants had been introduced in 1858-59 to meet the great want of labourers at the Cape. These were the last examples of a considerable accession to the European population by organised immigration.

Since the discovery of diamonds and gold, however, there has been a steady flow of emigration from Europe to the Cape, or to the Transvaal and other territories *via* the Cape. The number of persons landed at Cape ports has varied from 1,200 in 1873 to 5,700 in 1883, 12,800 in 1893, 42,938 in 1904, 30,363 in 1909, and 28,514 in 1921. But this was not the net immigration into the Cape, since a large number were "birds of passage" between the

Cape and Europe or emigrated to other parts of South Africa, chiefly the Transvaal.

Orange Free State.—The foundation stock of the European population of the Orange Free State consisted mainly of a few thousand of the Boer emigrants who had, as far back as 1828 but more particularly in 1836-37, left the northern and eastern districts of the Cape Colony and settled in the country between the Orange and Vaal Rivers. Thus, the Afrikaner element of the population of the Cape, which had been brought about by the fusion of Dutch, French and German blood, became the stock from which the great majority of the present European inhabitants of the Orange Free State have sprung.

During the period of the Orange River Sovereignty (1848-54), when the territory between the Orange and Vaal Rivers was under British rule, some of the English colonists in the Cape emigrated thither and took up their permanent abode in that territory, whereas a small number of Boers who had refused to submit to British rule crossed the Vaal River and settled in the Transvaal. In 1854, when the Orange Free State was recognised by Great Britain as an independent republic, there were reported to be about 15,000 Europeans, most of whom were Boers. The English residents were mainly in the towns and villages as merchants, traders, and artisans. There were only 139 Englishmen who owned farms, and even some of these were absentees.

From time to time, small numbers of both the English and Afrikaner colonists of the Cape emigrated to the Orange Free State. With the exception of several thousands of the "Voor-trekkers," who had settled in the Orange Free State in the course of a few years, immigration of permanent residents was at all times steady and of comparatively small extent only, but the natural increase was very significant. From 15,000 in 1854 the European population increased to 77,716 in 1890 and 188,556 in 1921.

Population of the Orange Free State (1854-1921).

Year.			Europeans.	Coloured.	Total.
1854	..	..	15,000	—	—
1865	..	..	35,000	—	—
1880	..	..	61,022	72,496	133,518
1904	..	..	142,679	244,636	387,315
1921	..	..	188,556	440,271	628,827

The great bulk of the inhabitants of the Orange Free State are located in rural areas and engaged in agricultural and pastoral pursuits. In 1921 only 74,746 out of an European population of 188,556 were in urban areas, and only 141,813 out of a total population of 628,827.

The coloured population of the Orange Free State consists almost entirely of Bantus, viz., 421,978 out of 440,271 in 1921, with 395 Asiatics and 17,898 mixed and other coloured. The Bantus are of the Basuto and Baralong tribes, and most of them are spread almost all over that Province on private farms, but are located mainly in the districts of Harrismith, Bloemfontein, Bethlehem, Kroonstad, Winburg, Thaba 'Nchu, Heilbron, Ficksburg, Ladybrand, and Vrede.

Transvaal.—In the Transvaal the nucleus of the European population was, as in the Orange Free State, a few thousand Boer emigrants from the Cape. It was first permanently occupied by Europeans in 1838, when a party of "Voortrekkers," under the leadership of Potgieter, leaving their compatriots in Natal, re-crossed the Drakensberg and proceeded over the Vaal River as far as the Mooi River, where the village of Potchefstroom was founded. In course of time the European population was increased by accessions from the Cape Colony and Natal. In 1843, when Natal was proclaimed a British Colony, the greater part of the Boer population of Natal began a new "Trek" and established themselves in the Transvaal; and in 1847 most of the remaining Boers, who had set up the Klip River Republic on the triangular tract of territory between the Drakensberg, the Tugela, and the Buffalo, crossed the Drakensberg for the Transvaal when the Lieutenant-Governor of Natal required an oath of allegiance to the Queen from them.

In 1872, when the first Gold Law was passed and the country was thrown open to prospectors, there were reported to be about 30,000 Europeans in the South African Republic (or the Transvaal), the great bulk of whom were Boers engaged in pastoral pursuits. The opening of the gold fields at Pilgrims Rest and in the De Kaap valley soon attracted several thousands, but it is really since the discovery of the Witwatersrand gold fields in 1886 and the rise of Johannesburg that the Transvaal has become the point of attraction for large numbers from other parts of South Africa and the outside world.

The Rand soon became the centre of a heterogeneous population. As early as 1890 already there were 14,334 aliens in the Transvaal, of whom 8,980 were British, 1,943 Germans, and 1,420 Hollanders.

Those born in the Transvaal numbered 59,394, or about one-half of the total, the Cape-born 29,285, and those born in the Orange Free State 11,527. Subsequent to 1890 the influx of the so-called "Uitlanders" assumed larger proportions and was responsible for a great deal of internal strife and dissension, which ultimately culminated in the Boer War.

Immigration was a factor of considerable significance in the growth of the European population of the Transvaal, from 30,000 in 1872 to 119,128 in 1890, 297,277 in 1904, and 543,485 in 1921.

Population of the Transvaal (1872-1921).

Year.			Europeans.	Coloured.	Total.
1872	..	..	30,000	—	—
1890	..	..	119,128	—	—
1892	..	..	—	649,560	—
1904	..	..	297,277	972,674	1,269,951
1911	..	..	420,562	1,265,650	1,686,212
1921	..	..	543,485	1,544,151	2,087,636

In the Transvaal the majority of the European inhabitants are located in urban areas, viz., 332,524 out of 543,485 in 1921, and the great majority of the urban inhabitants are in the Witwatersrand gold-mining area, comprising Johannesburg, Germiston, Benoni, Boksburg, Krugersdorp and Springs. Altogether there were 715,101 Europeans and coloured in the urban areas of the Transvaal in 1921, as compared with 708,082 in the case of the Cape.

The coloured population of the Transvaal consists primarily of natives (Bantus), viz., 1,495,869 out of 1,544,151 in 1921, with 15,991 Asiatics, and 32,291 mixed and other coloured. The great bulk of the coloured inhabitants are on the Witwatersrand and in the districts of Pietersburg, Zoutpansberg, Lydenburg, Pretoria, Waterberg, Middelburg, and Rustenburg. The large Bantu population of the Transvaal is due mainly to the prolific natural increase of the original Bantu tribes that had escaped annihilation by flight before the armies of Moselekatse and had returned to the territory between the Vaal and Limpopo Rivers, when Moselekatse had been defeated by the Boers and driven beyond the Limpopo. They settled on the land almost simultaneously with the pioneer farmers, subject to a small tax, and multiplied rapidly.

Natal.—The first European inhabitants of Natal consisted of a small party of English colonists from the Cape who had been attracted to Port Natal (Durban), in 1824, by the love of adventure and for the purpose of elephant-hunting and trading for ivory, and who had secured from Chaka (the Zulu king) a concession of the coast north and south of the port. Then, in 1837-38, a large number of the Boer emigrants from the Cape, under Retief, Potgieter, Uys and Pretorius, arrived in Natal; but, for various reasons, these did not prove to be permanent residents of Natal. Some left under Potgieter in 1838 already, and others followed in 1843, to settle in the Transvaal.

In 1845 the European inhabitants of Natal were said to have comprised about 400 families of Boers, who had elected to remain behind and were engaged in pastoral pursuits, and several hundred Englishmen most of whom resided in Durban and were engaged in trade. Most of the remaining Boers, however, emigrated from Natal to the Transvaal in 1847, but this loss was much more than counterbalanced by the introduction of over 4,000 British immigrants during the years 1848-51. The effect of this settlement, in conjunction with the emigration of the Boers, was to make the population of Natal predominantly British.

This immigration scheme contributed to set in motion towards Natal some portion of the stream of European life which was flowing to other lands. In 1856 there were about 8,500 Europeans in the Colony of Natal. As the result of small but steady immigration, that number rose to 46,788 in 1891 and 136,838 in 1921. A portion of the increase is to be attributed to the fact that, in 1903, the districts of Vryheid, Utrecht, and a part of Wakkerstroom had been transferred from the Transvaal to Natal.

Population of Natal (1856-1921).

Year.		Europeans.	Coloured.	Total.
1856	.. ..	8,500	—	—
1867	.. ..	17,836	260,970	278,806
1880	.. ..	—	—	406,625
1891	.. ..	46,788	497,125	543,913
1911	.. ..	98,114	1,095,929	1,194,043
1921	.. ..	136,838	1,292,560	1,429,398

The majority of the European inhabitants of Natal, as in the case of the Cape and the Transvaal, are located in urban areas, viz., 81,154 out of 136,838 in 1921.

The coloured population of Natal is composed of 1,139,804 Bantus, 141,649 Asiatics, and 11,107 mixed and other coloured. The Bantu population has advanced very rapidly on account of (1) the usual prolific increase of the aborigines who numbered about 100,000 in 1848 and were spread throughout the colony, being continually augmented by refugees from Zululand, and (2) the annexation of Zululand in 1897. In 1921 Zululand had a native population of over 250,000. In Natal proper the main centres of the native population are the districts of Durban, Inanda, Umzinto, Ixopo, Vryheid, Lower Tugela, Klip River, Pietermaritzburg, and Pinetown.

The Asiatics of Natal consist mainly of Indians and constitute the great bulk of the Asiatic population resident in the Union, viz., 141,649 out of 165,731. As early as 1860 Indian labourers were introduced into Natal under indenture for work on the sugar estates, in view of the scarcity of labour. On the conclusion of their indentures, the greater number of the Indian labourers elected to remain in the colony. Large numbers of Indians also followed in the wake of their indentured countrymen and established themselves in Natal. The result is that there are now more Asiatics than Europeans in the Province of Natal.

Increase of Population of Union since 1904.—The following table shows the growth of the population, since 1904, in all the territories now comprised within the Union, and the increase per cent. over the preceding census :—

Population of the Union (1904-21).

Year.	Europeans.		Coloured.		Total.	
	Number.	Increase per cent.	Number.	Increase per cent.	Number.	Increase per cent.
1904 ..	1,116,806	—	4,059,018	—	5,175,824	—
1911 ..	1,276,242	14	4,697,152	15·7	5,973,394	15·4
1921 ..	1,519,488	19	5,409,092	15·2	6,928,580	16·0

In the absence of substantial net immigration, the normal rate of growth of the coloured population is slightly higher than that of the European population, but during the decade from 1911 to 1921, although there was very little net immigration of Europeans into the Union, the rate of growth of the European population exceeded that of the coloured population by a fair margin, largely

on account of the ravages of the Influenza Epidemic of 1918 which affected the coloured more seriously than the Europeans.

Immigration.—Since the Boer War there has not been any considerable increase of the population of the Union by means of net immigration. In 1903, the year after the conclusion of hostilities, there was indeed a great influx of immigrants. In that year 71,085 persons landed at Cape ports, in 1904 42,938, and in 1905 39,928, but during the following four years there was a large loss of population (almost entirely European) as the result of an excess of emigration over immigration, influenced to a great extent by the depression of 1904-8.

During the decade from 1911 to 1921, 329,667 were reported to have entered, and 329,460 to have departed from, the Union ports, leaving a net immigration of 207 *via* the sea. Moreover, between 1914 and 1921 76,040 entered the Union by rail and 74,212 departed, *i.e.*, a net immigration of 1,828, or a total of about two or three thousand by sea and rail for the decade. But, when it is taken into consideration that approximately 29,000 Indians were repatriated during that period and about 5,000 Asiatics of all kinds admitted into the Union, it might be stated that there was a net immigration of about 25,000 Europeans during the decade from 1911 to 1921, or 2 per cent. of the European population of 1911.

In comparison with the United States of America, Canada, or Australia, South Africa has attracted a small number of emigrants from Europe, since the agricultural and labouring-class emigrants, who were the principal factors in the settlement of those countries, were prevented from emigrating to this country on a large scale by the following conditions :—

- (1) The competition of the natives, who provide an abundant supply of cheap manual labour and considerably narrow the scope of employment of unskilled white labour, has acted as a serious obstacle to the emigration of the labouring classes from Europe to South Africa.
- (2) The physical and economic conditions of the country are such that it is difficult for agricultural emigrants from Europe with small means to make a livelihood out of farming.
- (3) The pioneer farmers and their descendants were able, under the systems of land tenure in vogue at various times, to secure possession of large areas of fertile or well-watered or easily cultivated land, *i.e.*, land cultivated with a small capital outlay, with the result that at a fairly early stage the agricultural and pastoral resources of the country were

not rendered available to those classes of Europe from which emigrants for new countries were mainly recruited.

Distribution and Density of Population of the Union according to Provinces (1921).

Province.	European.	Bantu.	Asiatic.	Mixed and other coloured.	All Races.	Population per sq. mile.
Cape ..	650,609	1,640,162	7,696	484,252	2,782,719	10·0
Transvaal ..	543,485	1,495,869	15,991	32,291	2,087,636	18·9
Natal ..	136,838	1,139,804	141,649	11,107	1,429,398	40·5
O.F.S. ..	188,556	421,978	395	17,898	628,827	12·5
Union ..	1,519,488	4,697,813	165,731	545,548	6,928,580	14·6

Distribution of Coloured Population.—The following table shows the distribution of the coloured population of the Union according to urban areas (including municipal locations), native reserves and locations (not municipal), and other rural areas (farms), according to the returns at the census of 1911 :—

Distribution of Coloured Population of the Union (1911).

Race.	Urban Areas.	Native Reserves.	Other Rural Areas.	Total.
Bantu	508,142	1,686,585	1,824,279	4,019,006
Other Coloured ..	311,440	7,299	359,407	678,146
Total Coloured ..	819,582	1,693,884	2,183,686	4,697,152

Distribution of Population between Urban and Rural Areas (1911 and 1921).—The following table shows the distribution of the European and coloured population of the Union between urban and rural areas in 1911 and 1921 :—

Year.	European.		Coloured.		Total.	
	Urban.	Rural.	Urban.	Rural.	Urban.	Rural.
1911 ..	658,286	617,956	819,582	3,877,570	1,477,868	4,495,526
1921 ..	847,508	671,980	888,177	4,520,915	1,735,685	5,192,895

These statistical data lead to two important conclusions. The first is that the Union of South Africa is mainly an agricultural and pastoral country. According to the census of 1921, 44 per cent. of our total white population are located in the rural areas. The significance of this is apparent when it is taken in conjunction with the fact that the great bulk of the coloured population, viz. 83 per cent., are in the rural districts. The total population of the Union was distributed as follows : 1,735,000 urban and 5,193,000 rural, or 25 and 75 per cent. respectively. The white rural population is scattered over a vast area, and the agricultural and pastoral industries are carried on primarily with the aid of coloured labour.

The second conclusion, which is the more significant of the two, is that there has been a marked drift from the rural to the urban areas. The total white population of the Union increased by 19 per cent. during the decade from 1911 to 1921, an increase of nearly 2 per cent. per annum. This is almost entirely a natural increase, an increase of births over deaths, as there has been very little net immigration since 1911. The increase of births over deaths is about the same in the urban and the rural areas, the higher birth-rate of the towns and cities being offset by the lower death-rate of the rural districts. But instead of an increase of 19 per cent. in the rural population during that ten-year period, there was an increase of 9 per cent. only, whilst the villages, towns and cities showed an increase of 29 per cent.

This is very remarkable in a country with such vast tracts of unoccupied and uncultivated land, and where, in the case of occupied land, a system of ultra-extensive agriculture prevails. It shows that there is something radically wrong in our agrarian organisation, in our system of agriculture, that our agricultural methods have not been fully adapted to the peculiar physical and economic conditions of South Africa, and that the natural disabilities arising from drought, periodic floods, locusts, pests, hail, etc., have not been sufficiently overcome.

The migration of population from the rural districts to the urban areas is not necessarily a deplorable phenomenon. In certain countries, such as Great Britain and Germany, it was even welcomed and regarded as one of the favourable factors assisting in the remarkable development of manufacturing. It furnished the towns and cities with an abundant supply of unskilled labour, and manufacturing was developed to such an extent that the urban areas were capable of absorbing and employing the rural emigrants. But in South Africa the matter has acquired a serious aspect in view of the fact that (1) the Europeans are subject to the competition of low-paid coloured labour in the manufacturing

and mining industries, and (2) the development of such industries in the urban areas has not proved to be capable of absorbing the influx of Europeans from the rural areas.

Various remedial measures may be adopted to check the movement from the rural to the urban areas, but the most effective in the long run will probably be :—

- (1) Better provision for agricultural education and for rendering the knowledge of the modern scientific methods and the results of experiments more accessible to the farming community, so as to enable them to combat the forces of Nature and earn a living on the land ;³
- (2) the institution of a sounder and more comprehensive system of agricultural credit ;
- (3) provision for the settlement, on Crown land, of those who are desirous and capable of farming but do not have the necessary capital to take advantage of the Union Land Settlement Act.

The first two measures will be of great value in the practical execution of the third measure. The Government can do a great deal to alleviate or solve the problem through the media of the Land Bank and the Departments of Lands and Agriculture.

The development of the manufacturing industry will again assist by affording employment in the towns and cities to those who do not care to remain on the land, or who are absolutely incompetent as farmers or farm managers and must be subject to the discipline and control of factory foremen and managers.

Conclusion.—The total population of the Union, according to the census of 1921, consisted of an European population of 1,519,488, a native population of 4,697,813, 165,731 Asiatics, and 545,548 mixed coloured ; or, to make a distinction in round numbers between Europeans and all others, $1\frac{1}{2}$ million white and $5\frac{1}{2}$ million coloured, i.e., the proportion of 1 to $3\frac{1}{2}$. This disproportionate relation between white and coloured, or this numerical preponderance of the coloured races, has rendered the position of South Africa unique in the world and has given rise to numerous thorny problems.

The native and the Asiatic problems are undoubtedly two of the most complicated problems with which our statesmen have to deal. The latter is prominent only in Natal where there were 136,000 Europeans and 141,000 Asiatics in 1921, and the economic

³ The introduction of agriculture into the secondary school curriculum and of the new agricultural trains are welcome innovations and deserve to be extended.

relation between the two races is leading to trouble. By virtue of his lower standard of living the Indian is able to undersell the European and to work for a lower wage. In several instances the Asiatic has succeeded in displacing the European. He has become the mainstay of the sugar industry and a serious competitor in the retail trade. He has come into the possession of land, not only in the rural but also in the urban areas. His successful competition with the Europeans in trade, agriculture and industry is becoming more and more a menace to the welfare of the white population of Natal. It is a problem which demands drastic action, either restriction of the rights of trading and owning land now enjoyed by the Asiatic or repatriation on a larger scale. Both have their advantages and disadvantages. A combination of the two methods might prove to be the easiest way out of the difficulty.

The native problem applies to the whole of South Africa, but more particularly to the Transvaal, where the gold-mining industry is based mainly on the low-paid native labour. The industrial upheaval on the Rand, during the first quarter of 1922, largely turned on the question whether certain occupations in the mining industry should be thrown open to the natives or reserved exclusively for Europeans, as had been the case prior to that date.

His lower standard of living and the paucity of his wants have enabled the native to work at a much lower wage than the European. The native has a comparative advantage in those occupations which do not afford an opportunity to the white man to offset his higher wage by his superiority in skill, dexterity, knowledge, ability, resourcefulness, etc. In the unskilled occupations, which always afford a much wider scope for employment than the skilled, the white man is at a serious disadvantage in competition with the native; and as the native rises in the scale of civilisation, his competition will be more and more severely felt in the semi-skilled occupations as well.

The result of this peculiar state of affairs in South Africa has been that the lower strata of the white population, which are found in all countries and generally drafted into the unskilled occupations, find their normal field of employment occupied by the natives, Asiatics, and mixed coloured. In every country there is a large number of people who are not capable of undertaking other than unskilled work. The Union of South Africa is no exception to the general rule, but here the matter is complicated by the numerical preponderance and lower standard of living of the coloured population. This renders it very difficult for those sections of our white population which, by reason of a lack of training, ability or opportunity, are not fit for the semi-skilled and

skilled occupations, or do not have sufficient capital to undertake farming, to find employment in the unskilled occupations. The competition of the coloured labourer has brought the wages of unskilled labour down to a very low level, in many cases below the minimum of subsistence of the white labourer, with the result that unemployment and poverty have become permanent institutions in certain parts of the country and certain sections of the population. It is one of the most important causes of the poor-white problem.

The problem of the proper economic relation between the European and the coloured labourers in South Africa has not been solved as yet and demands close attention and careful study from our statesmen. It is still a matter of doubt to what extent the problem will be solved by territorial or industrial segregation, or by means of technical education and vocational training and the development of domestic industries. The latter alternative appears to be, for the immediate future at any rate, the more laudable and economical of the methods enumerated. Thereby the field of employment for the Europeans as well as for the coloured will be widened, and in addition the Europeans will enjoy the opportunity of a special industrial training to fit them for those occupations where some skill is required and where they have the advantage over the coloured. In the long run, however, it seems clear that segregation will have to be put into effect to a greater or less extent.

CHAPTER 4.

LAND TENURE AND PUBLIC LAND POLICY.

Land Tenure at the Cape prior to 1813.—The three forms of land tenure which had been in vogue at the Cape under the Dutch East India Company, viz.: freehold, loan and quitrent, were continued on the same lines under British rule until 1813, when a significant change was effected by the introduction of perpetual quitrent tenure.

The evil effects of loan tenure, which was by far the most important form of tenure at the time, had become so conspicuous by 1809 that the Governor of the Cape, Lord Caledon, communicated with the British Government with a view to bringing about the necessary alterations in the system of land tenure at the Cape. Five-sixths of all the land occupied in the Colony was held on loan tenure, the main defects of which were the following:—

- (1) the legal insecurity of the tenure and the consequent lack of inducement to apply capital and industry to the improvement of the land ;
- (2) the ease with which new land could be obtained, and the consequent inducement to move about ;
- (3) the inequality of the rent charge, which was not based on the value of the land but levied indiscriminately and invariably at the same rate (24 rds. per annum), irrespective of differences in the fertility or situation of the land ; and
- (4) confusion as the result of indefinite boundaries in the absence of surveys and title deeds.

It has already been stated ¹ that the relative insecurity of loan tenure and the ease with which land could be acquired under such tenure, had exercised a powerful influence upon the settlement of the Colony in accentuating the movement of eastward expansion and the dispersion of the stock farmer in the interior. The legal insecurity of loan tenure, due to the fact that the Government had the power to revoke the lease at the end of the year and take possession of the land again, was not an inducement to many of the stock farmers to settle permanently on one farm, improve the pastures, erect substantial and comfortable dwellings, and take measures for the conservation of water. It was only the more ambitious,

¹ See Part 1, Chapter 2.

industrious and enterprising who made such substantial and permanent improvements on their loan farms as they would have done on freehold farms ; and the available evidence appears to show that, although the other loan farmers, notwithstanding the precarious and uncertain nature of the tenure, felt themselves fairly secure in their possession of the land, as it was only on rare occasions that the Government resumed possession thereof, there was a distinct tendency on their part to refrain from applying themselves whole-heartedly to the development and improvement of their farms.

There are indeed instances on record of the Government resuming occupation of land given on loan tenure, on the ground of public necessity or convenience or on the ground of breach of conditions of the loan. For example, when it was decided to establish " Drost-dyen " (*i.e.* residences of the Landdrosts or Magistrates) at Tulbagh, Uitenhage, George, and Clanwilliam, the leases of the loan places where the dwellings were to be erected were revoked, with proper compensation to the tenants for their improvements. Also on the ground of breach of contract, such as in the case of wilful neglect to pay the usual rent to the Government, some loan leases were revoked and the land forfeited. But in general the Government did not take advantage of its right to revoke loan leases and resume possession of the land at the expiration of the year, and the loan farmers do not seem to have entertained any considerable fear that the annual renewal of their leases would not be granted, as long as they paid the rent. Moreover, although he had no right to sell the land, as it was not his property, the holder of a loan lease could sell or bequeath the " opstal " or buildings on the farm, and as a rule the lease of the land was granted to the purchaser or legatee, who became liable to all the restrictions and obligations attached to loan tenure. In many cases the " opstal " was sold for a larger sum than the real value of those buildings, and the Government tacitly acquiesced therein.

However, the fact remains that there was no real security of tenure for the occupiers of loan places. The leases were to be renewed every year and might be revoked at the expiration of the year, when the Government would resume possession of the land. At the death of the farmer, the land could not be subdivided amongst his children. It was merely the " opstal " which could be sold or bequeathed and acquired by an individual tenant. The psychological aspects of this uncertainty of tenure were quite sufficient to condemn the system of loan leases. As stated in the preamble of the land tenure law of 1813, it had become evident from experience that loan tenure was injurious to that certainty of tenure

so essential to the interest of the people ; and this was deemed to arise from the fact that it prevented the holders from appropriating as much of their means to the improvement and extension of agriculture as they would do, if they had absolutely no fear of resumption of the land by the Government, and if they could dispose of the land by sub-dividing it amongst their children or letting or selling or otherwise alienating it.

But it was not the partial insecurity of loan tenure, by itself alone, which exercised the profound influence on the process of settlement of the interior. In the majority of cases, it was more particularly in combination with the easy accessibility to new land that it militated strongly against permanent settlement. It was unnecessary for the farmer to adopt measures for the improvement of the pastures or the conservation of water, as he could easily move from one piece of land to another and take out a permit for the new land, in case the other land had become unsuitable for grazing or inadequate for his increasing stock of cattle.

The fifteen years' quitrent tenure was also liable to the objection that it did not afford complete security to the tenant, as the Government could resume possession of the land at the expiration of the fifteen years, on payment of compensation for the buildings, plantations, or crops. This did indeed offer greater legal security to the occupier than the loan lease, but, in view of the fact that it was made to serve merely as a supplement to existing forms of tenure and was limited to small areas of land, it was never adopted to any great extent.

Freehold tenure was of course the most secure form of tenure and the one that was most conducive of stability, improvement and development, but, with the exception of the freehold grants to the first farmers who were settled on the land between 1657 and 1700, the Government had all along been reluctant to make permanent concessions ; and consequently freehold tenure was found to exist upon a comparatively small scale only. In 1813 there were 646 freehold farms and 5,130 morgen held on quitrent tenure, as compared with 2,058 loan places. The freehold farms were about 50 or 60 morgen in extent, and the loan places about 3,000 morgen.

As a result, then, of the predominance of loan tenure and the injurious effects of such tenure upon the development of agriculture and stock farming, Lord Caledon had made certain representations to the British Government, in 1809, in connection with the unsatisfactory system of land tenure in vogue in the Cape Colony ; but no immediate action was taken in the matter. In 1811 he was succeeded as Governor by Sir John Cradock, who,

soon after his arrival, expressed the opinion that the system of loan leases was highly detrimental to economic progress, and proceeded to submit the matter, for careful consideration of the interests of the Government as well as of the farming community, to those officials who were most competent to deal with the alterations which were to be made in the form of land tenure. The Fiscal, J. A. Truter (afterwards Sir John Truter), was the official who offered the most valuable and suitable suggestions, many of which were embodied in the proclamation subsequently issued. His main proposal was to replace the uncertainty of loan leases and fifteen years' quitrent tenure by the complete security of perpetual quitrent² tenure, which would, moreover, furnish the Government with a substantial annual revenue.

Perpetual Quitrent Tenure (1813).—In accordance with Truter's suggestions, a proclamation was issued in August, 1813, which was to change the old form of tenure and "place property upon a solid and secure foundation." All future grants of land were to be made on perpetual quitrent tenure, except in special cases, and the holders of loan leases were allowed to apply to the Government for the conversion of their loan places into perpetual quitrent properties, whereby they would acquire full possession of the land and obtain a title deed in testimony thereof; but the property was subject to the payment of an annual rent to the Government, the rent being based on the location, fertility and other circumstances of the land and not charged according to a uniform rate as in the case of loan tenure. The holders of perpetual quitrent properties obtained the right to transmit the same hereditarily, to sub-divide the land amongst the sons, to sell or otherwise alienate it, either partly or wholly, and in general to do with it as they thought fit. Land held on perpetual quitrent tenure was to be subject to the same laws and rights that applied to freehold land, and was not to be liable to any burden to which freehold land was not subject.

Perpetual quitrent farms were thus rendered practically identical with freehold farms, the only important difference being that the former were subject to the payment of a perpetual annual rent to the Government, in view of the fact that the State originally owned the land concerned and, moreover, was in need of revenue. Also, the Government reserved the right of making and repairing public roads and mining precious stones and precious metals. But otherwise perpetual quitrent tenure offered just as much freedom, scope and security as freehold tenure.

² Dutch term "Eeuwigdurende Erfpacht."

The new system of land tenure served to be conducive not only to the interests of the individual farmer, in that he was secured in the permanent and undisturbed enjoyment of the fruits of his labour, but also to the interests of the Government in that, besides yielding an increased land revenue, it brought about more extensive cultivation and improvement of land, as there was absolutely no fear of resumption.

At first, however, the holders of loan leases did not, to any considerable extent at any rate, take advantage of the opportunity of converting their loan places into perpetual quitrent farms. The main reasons were, in the first place, that the farmers had become accustomed to the system of loan tenure and, in their extreme conservatism, were loath to change in spite of the great advantages of secure tenure; and secondly, that the rent was higher, under the new form of tenure, in the case of those farmers whose land was comparatively fertile or favourably situated. It was only gradually that they realised the position and applied for the conversion of their loan farms into perpetual quitrent farms, when the land was surveyed, a proper diagram framed, and a title deed issued to the occupier. The farms were not to be of any greater extent of land than was legally possessed on loan by the occupiers, *i.e.*, about 3,000 morgen, originally determined by means of half-an-hour's walk on all sides from a central spot.

In the case of fifteen years' quitrent tenure, the leases were not renewed at the expiration of the term of fifteen years, but the tenure was converted, in a few cases, into freehold and, in the majority of cases, into perpetual quitrent tenure. And of course all new grants of land were based on the new form of tenure.

In this way perpetual quitrent tenure came to replace loan tenure as the most important form of land tenure in the Cape Colony, in the beginning of the 19th century. Henceforth, the two forms of land tenure at the Cape were (1) freehold tenure, in which case the owner held the land free of rent, and (2) perpetual quitrent tenure, in which case the owner held the land subject to the payment of an annual rent to the State as the original lord of the soil. The latter form of tenure has continued up to the present day alongside of freehold tenure, as fiscal necessity had all along induced the Cape Government to formulate a public land policy which aimed at making Crown lands yield as large a revenue as possible, consistent with the interests of the farming community. The quitrent, which was fixed by contract, was generally based on the value or purchase price of the land and represented approximately 5 per cent. interest on such purchase price, the quitrent remaining the same in spite of a subsequent rise in the value of the land which

would redound to the benefit of the owner. Under the provisions of Act 14 of 1878, the annual rent payable upon any quitrent farm could be redeemed at 20 years' purchase, *i.e.*, by the payment of a sum equal to 20 times such annual quitrent. In many instances the quitrents have been redeemed in the Cape, but there are still thousands of persons subject to quitrent, and the revenue derived from quitrents still amounts to about £100,000 per annum.

Land Legislation in the Cape after 1813.—As already stated, from 1813 Crown land was granted to approved European applicants on perpetual quitrent tenure. In 1831 Cole's Auction of Crown Lands Ordinance came into force, prescribing the sale of Crown lands by public auction, the result of which was the sub-division of farms in some cases and the tendency to migration in others, in view of the fact that it was now more difficult for all the sons of farmers to come into possession of large farms in the Cape Colony; and in 1856 it was further enacted that Crown land was not to be granted but sold, subject to an annual quitrent, at a price sufficient to defray the costs of inspection, survey and title deed. In 1860 provision was made for the redemption of quitrents at 15 years' purchase, and in 1878 at 20 years' purchase.

In 1882 the Agricultural Lands Act was passed by the Cape Parliament, in accordance with which grants of small areas of waste Crown land, not exceeding 250 nor less than four morgen in extent and suitable for agricultural purposes, could be made to approved applicants on a five years' licence entitling the holder to receive a title deed at the end of the term, subject to a perpetual annual quitrent equal to one-twentieth of the price fixed for the land. As there is but little available Crown land at present in the Cape Province suitable for agricultural purposes, very few allotments have been offered for selection in terms of this Act during the last few years. Since the Union 39 individuals have acquired possession of an area of 7,359 acres, valued at £5,577, under the Act.

The Land Act of 1887 is the principal Act in the Cape, apart from the Union Land Settlement Act of 1912, regulating the disposal of Crown land. In accordance with this Act, Crown land is offered for sale at public auction after wide-spread advertisement of the minimum or upset price. In cases where the purchase price exceeds £25, one year is allowed for the payment of one-fifth thereof, while a mortgage in favour of the Government for the remaining four-fifths may be passed bearing interest at the rate of 4 per cent. per annum. During the period from 1910 to 1923, 373 individuals took advantage of the Act to come into possession of 1,409,732 acres, valued at £150,000.

The Land Act of 1891 deals with the sale of certain lands bought or improved by the Government, and provides also for the leasing of land, which it is considered inadvisable to alienate in full ownership, for five years without the option of purchase; and the Act of 1895 provides for settlement on large areas of non-arable or slightly arable land, of an extent of 3,000 to 6,000 morgen, for sheep or cattle farming. This Act aims at the development of large pastoral areas, whereas the Act of 1882 provides for the development of small agricultural areas. The Act of 1895 enables an applicant selected by a Land Board to rent land at about 5 per cent.³ of its capital value on a lease for five years, at the expiration of which he may purchase the land by equal instalments extending over 15 years. During the period from 1910 to 1923, 232 individuals received an allotment of 2,702,000 acres, valued at £75,000, under the Act of 1895, and 424 individuals an allotment of 2,968,000 acres, valued at £104,000, under the Act of 1891.

All these Acts are still in force in the Cape, but since 1912 their operation, in so far as land settlement is concerned, has been reduced to a minimum by the Union Land Settlement Act.

Land Tenure and Land Policy in Natal.—When Natal was proclaimed a British Colony in 1843 and governed as a sort of dependency of the Cape until 1856, the same system of land tenure was brought into vogue in Natal as prevailed at the Cape. Land was granted in freehold only in special cases, and on perpetual quitrent tenure as a general rule. In Natal the quitrent was fixed in terms of the grant according to a rate laid down by Proclamation or according to the value of the land. When the Cape provided for the redemption of quitrents at 20 years' purchase, Natal followed suit, and to-day the quitrents have been almost entirely redeemed in that Province, the land in question being now held on freehold tenure.

Toward the end of the 19th century, as in the Cape, provision was made for the sale of Crown land in freehold by public auction, at an upset price of 10s. per acre, payable in ten annual instalments without interest, and for the leasing of certain classes of land for grazing purposes, in lots of from 500 to 5,000 acres, for any period not exceeding ten years.

Prior to the coming into effect of the Union Land Settlement Act of 1912, the only Act dealing with land settlement in Natal was Act 44 of 1904, which was intended to aid and encourage agricultural development. The provisions of this Act were, however, found to be faulty and impracticable, necessitating the passing of several

³ Increased to 6 per cent. from May 1, 1922.

amending acts, but even these did not remove its defects ; and as the Act has failed to a large extent to meet the requirements of land settlement in Natal, operations thereunder have been entirely suspended, and allotments are now made either under the Union Act or, where it is not practicable to impose ordinary land settlement conditions, under rules and regulations promulgated by the Governor-General.

The main proclamations governing the disposal of agricultural land in Natal regulate the disposal of :

(1) Crown land set aside for the cultivation of sugar-cane, in which case leases are granted for a period of 99 years. No rental is payable in respect of the first two years of the lease, but for the succeeding twenty years an annual rental representing one-twentieth of the valuation of the land is charged, and thereafter an annual rental of one shilling per annum in respect of the remainder of the period of the lease. The reason why a lease for 99 years is issued in connection with sugar lands is that, before allotting such lands, it is customary for the Government to arrange with a third party for the erection and operation of a central mill, the mill-owner receiving the sole crushing rights up to a stated limit of cane grown within a certain area by Crown allottees.

(2) Land which was acquired by the Government of the Colony of Natal for the purpose of closer settlement. The sole price of such land is payable in 18 equal annual instalments, including interest thereon at the rate of 4 per cent.

(3) Crown land, other than sugar-cane lands, reserves, or township lands. The purchase price of ordinary Crown land is payable in 20 equal annual instalments, the first of which falls due at the termination of the third year from the date of allotment.

Under these proclamations 686 individuals were allotted, during the period from 1910 to 1923, an area of 521,000 acres, valued at £561,000.

Transvaal and Orange Free State.—In the Transvaal and the Orange Free State the pioneer farmers had acquired possession of large tracts of land.⁴ As early as 1820 many farmers from the Cape Colony sought better pastures for their flocks and herds to the north of the Orange River for a few months each year. Their numbers increased annually, but it was not until 1828 that any of them permanently remained. They found the central portion of the territory almost uninhabited and settled there, coming gradually into contact with the Basutos on the east and the Griquas on the

⁴ Under the influence of the procedure in the Cape, the size of the farms was determined by means of half-an-hour's ride on horseback at a walking pace, on all sides, from a central spot, resulting in an average size of about 3,750 morgen.

south-west, and had no difficulty afterwards in purchasing tracts of land at nominal prices. After 1835 these pioneers were followed by the thousands of Boer emigrants (the Voortrekkers) who left the Cape Colony in order to be free from British control. Some of them settled in the territory between the Orange and Vaal Rivers, while the others moved further northwards and crossed the Vaal River, where they found no difficulty in possessing themselves of the country, as the greater part of it had been depopulated during its occupation by the Matabele, under the chief Moselekatse.

With the development of constitutional government the need of revenue arose, and a tax, which was very much of the nature of a rent charge in recognition of the State as the original lord of the soil,⁵ was imposed upon all occupied land within those territories. During the period of the Orange River Sovereignty (1848-54), when the territory between the Orange and Vaal Rivers was under British rule, land was given out, as in the Cape, subject to the payment of an annual quitrent, which was extended and developed by 1876 into a land tax payable upon all farms within the Orange Free State at the rate of 2s. per 100 morgen or portion thereof.

In the Transvaal, also, a land tax was imposed upon all farms within the Republic from an early date. At first, every burgher born in the Republic, on attaining his majority, had a right to a freehold farm out of lands belonging to the State, but the law conferring this privilege was subsequently repealed, and the Republican Government resolved to dispose of the State land either by sale to individual farmers and land companies and syndicates on freehold tenure, or by grant to settlers on quitrent tenure. Thus there arose a combination of freehold and quitrent tenure, the only important difference between the two being that the former was, and still is, subject to a lower rate of land taxation than the latter. Otherwise, in the Transvaal as well as the Orange Free State, land granted or sold by the Republican Government is held in full and free property by the registered holders, whether of freehold or quitrent farms.⁶

⁵ See Chapter on Public Finance.

⁶ Mention should also be made of the system of occupation tenure instituted by the Transvaal Occupation Law of 1886, in accordance with which land was granted and held subject only to the condition of occupation. Under this law continuity of title depended upon the residence of the grantee upon his farm, lot or erf. The total number of farms granted by the Republican Government on occupation tenure was about 940, all of which were situated in the Zoutpansberg district. The main purpose of this easy form of tenure was to attract European farmers to the thickly-populated native areas in that extensive district, but the ultimate effect of the Occupation Law was to create a class of poor whites squatting on land which they did not and could not put to any beneficial use owing to want of capital and other adverse conditions. In 1907, however, legislation was passed with a view to empowering the Transvaal Government to convert occupation title into freehold title.

Land Policy of Transvaal since Boer War.—The Transvaal Settlers' Ordinance of 1902, which was later amended by the Land Settlement Act of 1907, was the first attempt in the Transvaal to deal with what is usually termed land settlement. The funds from which settlers were assisted, and with which suitable land was acquired, were furnished from the Guaranteed Reconstruction Loan of 1903, out of which £1,300,000 was set aside for general land settlement purposes. Land was given out to settlers on lease for five years, renewable for two further periods of five years, with the option of purchase, the purchase price being payable in equal instalments over a period of 30 years, bearing interest at 4 per cent. per annum. Advances were also made to the settlers for the purpose of purchasing stock and implements and effecting permanent improvements. The advances were on an average £300, but as much as £1,000 was advanced in some cases. No allotments or advances are now made under the Settlers' Ordinance of 1902, the funds available for assistance having been exhausted years ago.

In 1912, when legislation was passed by the Union Parliament authorising the issue of title deeds to those settlers on their passing a mortgage bond in favour of the Union Government to secure any balance due in respect of the purchase price or the advances, 440 settlers were established on farms under the Ordinance. Most of the settlers took advantage of the opportunity and acquired title deeds placing them in full possession of their farms. In 1923 there were only 57 of the settlers who still held their farms on lease or licence instead of in full and free property. The total sum due to the Union Government under the mortgage bonds is repayable over a period of 30 years in equal half-yearly instalments.

Apart from the Union Land Settlement Act of 1912, the disposal of Crown land in the Transvaal is governed by the Crown Land Disposal Ordinance of 1903, which empowers the Government to dispose of unalienated Crown land by grant, sale, lease or otherwise, and to exchange, donate or reserve such land. Schedules of land available are published by the Department of Lands at intervals, giving information of a general nature relating to valuation, size of holdings, water supply, rentals, and distance from railway. The Crown land at present available is for the most part situated at some considerable distance from the railway lines and from markets, and it is suitable mainly for stock farming.

Financial assistance for the development of holdings under this Ordinance is granted by the Government to a limited extent, advances not exceeding £250 being made for the purchase of stock and equipment. The price of unimproved land varies very considerably according to the district and even in different parts of

the same district. The usual form of title offered is a lease of five years, carrying an option of purchase during or at the expiration of the lease in instalments extending over a period of 20 years and bearing interest at 5 per cent. In some cases leases without option of purchase are issued where an impediment to the sale of land exists, due to the land being mineralised or having been proclaimed under the mining laws. In such cases the lease extends over 21 years, and the annual rental is generally $2\frac{1}{2}$ per cent. of the value of the holding.

On March 31st, 1923, there were 1,476 lessees holding land, under the Transvaal Ordinance of 1903, of an area of 2,996,000 acres, valued at £640,000.

Land Policy of Orange Free State since Boer War.—In the Orange Free State (or Orange River Colony) a sum of £1,250,000 was allocated to land settlement purposes from the Reconstruction Loan of 1903. The land settlement schemes were conducted in accordance with the provisions of the Orange River Colony Land Settlement Ordinance of 1902, which was based on the same principles as the Transvaal Ordinance. Land was given out to settlers on lease for a number of years, with the option of purchase by instalments, and advances were made to them. In 1912, when the Union Parliament authorised the issue of title-deeds to the settlers provided that a bond was passed in favour of the Government for the outstanding amount in each case, there were 556 settlers established on farms in the O.F.S. under the above Ordinance of 1902. With one exception these settlers have taken advantage of the opportunity and come into the full and undisturbed possession of their holdings. As in the Transvaal, the money available for land settlement schemes in the O.F.S. under this Ordinance has been exhausted years ago, and consequently no allotments or advances are now made thereunder.

The disposal of Crown land in the O.F.S., other than for settlement purposes, is governed by the Crown Lands Disposal Ordinances of 1905 and 1908, which provide for the sale of Crown lands which are not of sufficient extent to be occupied as separate holdings. Since the date of Union only 34 farmers have acquired land under these Ordinances, comprising an area of 77,600 acres, valued at £27,500. At present there is practically no unalienated Crown land in the Orange Free State.

Summary.—These Acts or Ordinances were the main enactments dealing with the disposal and settlement of public land in the Cape, Transvaal, Natal and Orange Free State, prior to the passing of the Union Land Settlement Act of 1912. The provisions of this Act

are to be construed as being in addition to, and not in substitution for, any prior law or regulation relating to the disposal of Crown land or to land settlement. The pre-Union statutes were to remain in force and to be carried out in practice as far as they were applicable, and to some extent some of those Acts and Ordinances are still in operation at present, especially as regards the sale of Crown land by public auction or out-of-hand to the adjoining landowners or others. Applicants have indeed the option of applying for land under the Act or Acts in force in the Province concerned or under the Union Land Settlement Act; but in view of the greater advantages and privileges conferred in connection with the establishment of settlers on the land, the Union Act of 1912 and the amending Acts of 1917, 1920 and 1922 embody the provisions under which active land settlement in the Union is at present conducted.

In summarising it may be stated that, from the beginning of colonisation in South Africa, the land policy of the public authorities was formulated with a view to making the State lands serve as an important source of revenue. Under the Dutch East India Company and under British rule for a number of years, the loan leases yielded a fairly substantial revenue; and it was reported that its revenue-yielding capacity was one of the factors which were responsible for the long continuance of this system of loan tenure. In 1813, however, the Cape Government resolved to reconstruct its land policy and introduced perpetual quitrent tenure with the dual purpose of deriving an increased revenue from Crown lands and promoting the development of the agricultural and pastoral resources of the colony. From that time onwards the land policy of the Colonial Government consisted, with various exceptions as in the case of organised immigration and native administration, of making the public lands yield as large a revenue as appeared to be consistent with political expediency and the economic development of the colony.

Natal commenced its development under the ægis of the Cape Government and built up a public land policy which, as in the Cape, aimed at securing a large land revenue, whether in the form of quitrents or the proceeds of sales or leases. In the Transvaal and the Orange Free State, on the other hand, the State domains, with the exception of mineral lands, were not made to yield any considerable revenue during the early period, in the interests of political expediency and tax consciousness. A small revenue was derived from land by means of a tax or quitrent, which was based on the extent, and not the value, of the land and had to be kept very low in view of the fact that the burghers of the Republics exhibited a strong dislike of direct contributions to the State Treasury. Towards

the end of the Republican rule, however, measures were taken to secure a larger revenue from public lands by sales and leases ; and after the Boer War the Crown Colony Government not only took more stringent measures regarding the disposal of State lands for the purpose of enhancing the revenue, but also made liberal provisions for the establishment of settlers on Crown land with Government assistance.

In continuance of the public land policy of the Colonial Governments, the Union Government aims at securing a substantial revenue from Crown lands as well as promoting land settlement on a large scale. Since the establishment of the Union in 1910 the Union Government has realised nearly £1 $\frac{3}{4}$ million from the sale of Crown land, and the State further derives a revenue of about £200,000 per annum from quitrents and the rents of Crown lands held on lease or of native locations. Land settlement is undertaken by the Union Government on a larger scale than it has ever been conducted before in South Africa. Since 1910 an amount of £6,000,000 has been involved in land settlement schemes, more particularly in terms of the Union Land Settlement Acts. There are still about 30 or 40 million acres of unalienated Crown land in the Union, but with the exception of about 1,000,000 acres in Zululand, 600,000 acres in Northern Transvaal, the Kalahari and the northern portion of Namaqualand, there is, stated broadly, no Crown land (apart from native reserves, locations, forest reserves, outspans, township reserves and commonages), in the Union suitable for settlement. Moreover, apart from the land in Zululand there is practically no Crown land in the Union suitable for agricultural purposes. The Northern Transvaal, the Kalahari and the extreme north-west of Namaqualand are dry, waterless regions, where the settlement of pastoralists even is impossible until water is found by boring. Water-boring is being carried on in these areas except Namaqualand, but it is a relatively slow process.

Union Land Settlement Act of 1912, as amended by the Acts of 1917, 1920 and 1922.—The main provisions of these Acts empower the Minister of Lands :

- (a) to dispose of Crown land, or private land acquired by purchase or exchange for land settlement purposes, after division into suitable holdings, advertisement in the Government Gazette and local newspapers (giving full details as to terms, price, and the like), to approved applicants on lease for five years with the option to purchase in 40 half-yearly instalments, the instalment payments amounting to £7 19s. 4d. per annum on every £100 of the allotment price, which comprises the

market price of the land, if Crown land, or the purchase price of the land, if private land, plus the costs of transfer, survey, division and improvement ;

- (b) to acquire and allot particular land selected by an applicant who is prepared to contribute in cash at least one-fifth of the total cost thereof, the balance of four-fifths being payable in 18 annual instalments at the rate of £8 9s. 10d. on every £100 from the third year of occupation, as no payments are required during the first two years ⁷ ;
- (c) to make advances not exceeding £500 in amount to settlers for the purpose of developing their holdings and purchasing stock, implements, seeds, etc., the advances being repayable over ten years with interest at the rate of 5 per cent. ;
- (d) to cause boring operations to be effected or improvements of a substantial and permanent nature to be erected or constructed, and to add the cost thereof to the purchase price of holdings.

Administration.—The administration of these land settlement Acts is vested in the Minister of Lands, the Department of Lands, and a Land Board of five members in each Province, the functions of the Land Boards being to advise the Minister in regard to the value of the land concerned, the suitability of the land for settlement purposes, the nature and extent of the existing water supply on the land, the selection of settlers, the granting of financial assistance to settlers, etc.

Extent of Operations under Union Land Settlement Act (1912-23).—Under the scheme, in terms of which Crown land or private land acquired by purchase or exchange for settlement purposes is leased for five years with an option of purchase over 20 years, 3,643 settlers were allotted an area of 7,885,000 acres at a valuation of £2,498,000. In connection with this an amount of £1,256,000 was expended on the purchase of 616,000 acres of private land for sub-division into suitable farms for allotment to the public. The Crown land was in most cases suitable only for pastoral purposes in large areas. Several ranches of about 60,000 acres were established in the Waterberg and Zoutpansberg Districts of the Transvaal, for example, and allotted in this way, while the normal farm unit for cattle raising in these districts was from 4,000 morgen upwards.

Moreover, the scheme, in terms of which land is purchased specially for applicants who are prepared to contribute at least one-fifth of the purchase price, enabled 1,357 settlers to acquire

⁷ Interest at 5 per cent. per annum in respect of the first two years is added to the purchase price.

an area of 899,000 acres, involving an expenditure of £1,562,000 in respect of purchase price, costs of transfer, survey, etc. Of this amount the settlers contributed £328,000, and the Government £1,234,000.

As a scheme for promoting land settlement, that based on the principle of contributory purchase seems to have proved the most successful and satisfactory, and "the results of its working have put it easily ahead of all others on the ground of economy." No appreciable loss has been sustained by the Government either in capital or interest. This system is becoming more and more favoured by prospective settlers, more particularly in the Transvaal and in the more settled districts of the Cape Province.

Much has been done in recent years in the way of land settlement to open up the outlying districts. The progress made in Zululand and in districts such as Barberton, Waterberg, Pietersburg, Zoutpansberg, Rustenburg, Kuruman and Gordonia has been encouraging, and the settlers are, generally speaking, successfully established on their respective holdings. There has, however, been a number of settlement failures. The Government has had to resume possession of a number of holdings owing to the failure of the settlers to carry out the terms of their purchase. Also, certain amounts of interest or principal have had to be written off as irrecoverable. This is to be attributed mainly to pioneering difficulties. The climatic conditions are sometimes very unfavourable; the rainfall and soil conditions are to a great extent unknown; water may be scarce until boring is proved; stock diseases may at first be difficult to overcome; and there is a lack of transport facilities and the amenities of civilisation. Under such circumstances settlement failures are likely to occur unless adequate provision is made for strict regulations and supervision over the settlers, as well as training facilities for the settlers.

One of the prime requisites of successful land settlement is the adaptability of the settlers for the kind of agriculture or stock farming practised in any particular section of the country. At the end of the World War, when the Government was confronted with the problem of providing for the returning soldiers, five agricultural schools and five training farms were designated or instituted to provide a special training for ex-soldiers who were desirous of taking up land, but who were inexperienced and unacquainted with agricultural and pastoral methods and operations. This is a very necessary institution and ought to be improved and extended as far as is practicable. Where an adequate preliminary training is lacking, recourse should be taken to the employment of itinerant agricultural

experts, particularly in the case of closer settlements where dairying, pigs, poultry, fruit, cotton, etc., play an important part.

In most aspects the land settlement Acts of the Union are fairly satisfactory, but, on account of the lack of sufficient funds, the range of the Government schemes is too limited. They do not tend to bring the better classes of poor whites without any capital on the land, although adequate provision is made for anyone with a moderate or even a small capital who would not have been in a position to undertake farming without Government assistance. In view of the existence of an unusually large number of poor whites in South Africa, some of whom are capable of being rendered good farmers under training and direction, it seems advisable to extend the Government scheme of land settlement so as to provide for men without any capital as well as for those with capital; and this can probably be accomplished most effectively and economically by means of a system of probationary holdings on closer settlements where they can be trained and tested, or by means of a system of agricultural labour colonies, where such men are granted the opportunity of earning a decent living under proper supervision and training, gaining the requisite knowledge of modern farming practices, and acquiring the small capital needed to enable them to take advantage of the facilities offered by the Land Settlement Act of 1912, or of improved facilities to be instituted especially in connection with closer land settlement schemes.

Special Provisions.—The aforementioned Acts, Ordinances and Proclamations relating to land tenure and land settlement in South Africa are applicable as a general rule. They constitute the general modes of acquiring, holding or occupying land, with or without Government assistance; but special provisions have been made from time to time in connection with (1) organised and state-aided immigration from overseas, (2) native land tenure, (3) mineral lands, and (4) forest lands.

Immigration.—Under the Dutch East India Company the Dutch and French immigrants, who were systematically imported into the Cape from Holland by the Company during the second half of the 17th century, were granted small areas of land in freehold for agricultural purposes, and were moreover permitted to hold larger areas of land, on loan tenure, for pastoral purposes. Then, when about 5,000 British immigrants were settled in parties in the Eastern Province of the Cape during the years 1820 and 1821, an area of 100 acres of agricultural land was allotted to each male over 18 years of age; and at the expiration of three years a title deed was issued to the head of the party for as many hundred

acres as there were such males remaining thereon. During the first ten years they were exempted from taxation or the payment of any rent, but thereafter the land was subject to an annual quitrent of £2 per hundred acres. In Natal the 4,000 British immigrants, who were introduced and settled during the years from 1848 to 1851, were granted allotments of 50 acres of land on payment of a deposit of £10.

In 1857, again, when about 4,000 soldiers of the Anglo-German Legion were introduced and settled by Sir George Grey in British Kaffraria as a sort of protection for the Cape Colony, village communities were established and each soldier received a small allotment of agricultural land and a building lot in a village, as well as the right of grazing cattle or sheep on the common pastures; and in 1858-59, 2,000 German agricultural immigrants were also introduced into British Kaffraria, each head of a family receiving a building lot in a village free of charge, 20 acres of good land at £1 per acre, five acres for each child above 14 years of age, and three acres for each child between 10 and 14, at the same price. The purchase price of the land was to be paid in instalments over a period of years, and title deeds were issued on payment of the last instalment. These German settlers held their land on military tenure, *i.e.* they held the land in property but on condition that they rendered military service against the Kaffirs when called upon by the Government.

Native Land Tenure.—No system of land tenure was found to be in existence amongst the Hottentots and Bushmen, the former a nomadic pastoral people and the latter a race of hunters, unacquainted with the methods and products of tillage or agriculture. The Bantu tribes, however, had developed a system of communal land tenure. They were tillers of the soil, to a certain extent, and did not entirely rely on nature for the requisite supply of vegetable foods.

Under the tribal organisation of the Bantus or Kaffirs, all land was regarded as belonging to the paramount chief; but in practice, in relation to the tribe, he was a sort of trustee, holding the land on behalf of the people who occupied and used it, in subordination to him, on communistic principles. The chief apportioned to each head of a family as much land as his wives could till, and it remained in that individual's possession as long as it was cultivated. All the land that was not required for agricultural purposes, as well as all wood and water, was regarded as common property for the grazing of cattle and sheep or for the needs of all the members of the clan, but the chief had the power to direct that portions of

it should be used in certain seasons only. The cultivated plots were not enclosed by means of hedges or fences and were very irregular in outline.

It was the sense of solidarity of the tribe that led to the nationalisation or tribalisation of the land. All the land was held by the chief of the tribe, and no individual tribesman had the right to sell or alienate any piece of land or had an exclusive right to any spot as grazing ground.

This system of communal tenure is still the most important form of land tenure on the native reserves in the Union of South Africa, but elaborate provisions have been made, within the past fifty years, for the introduction of individual tenure amongst large numbers of natives on certain reserves.

The first occasion on which individual tenure of land was extended to any of the aboriginal inhabitants of South Africa was in 1829, when, as the result of vagrancy, about 2,000 Hottentots were settled in the Kat River Valley, from which the Kaffir Chief Macoma had been expelled. The Kat River basin was laid out in locations or village communities where each family received an allotment of from four to six acres of arable land, with the right to graze cattle and sheep on the pasture lands reserved as a commonage for the community. The settlers were to remain five years on probation, at the expiration of which period those who had built cottages and brought their land under cultivation were to receive grants in freehold; but all garden land not improved within that time was to revert to the Government. With a view to facilitating the issue of title deeds, a regular survey was undertaken soon afterwards, but was interrupted by the war of 1835. By 1837 only 90 titles had been issued, and on account of various interruptions and delays the survey was not fully completed until 1855.

In general the Kat River settlement proved to be a success, although there were not infrequent cases of Hottentot settlers becoming so involved in debt, in consequence of extravagance and intemperance, that they were compelled to sell out to Europeans. The measure of success achieved by this settlement was sufficient to set a movement on foot, during the sixties, in favour of granting the Bantus individual titles to land. However, it was not until the end of 1875 that definite measures were taken with the object of issuing individual titles to Kaffirs, the first to come into consideration being the Fingoes.

After the Kaffir War of 1835 the Fingoes, who had not taken part in the hostilities and were in fact hostile to the marauding Kaffir tribes, had been located in the territory between the Keiskamma and Fish Rivers for the defence of the frontier line. They

were to serve as a sort of buffer state between the colonists and the hostile Kaffir tribes. The advisability of this action was more forcibly demonstrated by the Kaffir Wars of 1846 and 1850, and it was resolved to undertake a more definite scheme of settling the Fingoes along the border of the Cape Colony. A larger tract of land was allotted to the Fingoes, to be occupied by a series of Fingo settlements, each consisting of a definable village surrounded by sufficient lands for pasturage and tillage.

The occupation of the land was on the tribal basis, *i.e.* without definition of internal limits and subject to the control of the chiefs with regard to the distribution of land and water. But the course of events served to bring about the conversion of their tribal or communal tenure into individual tenure from 1875 onwards. During the fifties already the condition of the Fingo settlements had been a source of anxiety to the Government, in view of the great increase of the number of occupants caused by the influx of natives from other localities. In the absence of title deeds the occupants had no power to prevent encroachment by intruders, and the attention of the Government was drawn to the danger and inconvenience of massing thousands of Fingoes together without means of sufficient management and control, and with little inducement to industry and enterprise as the result of insecurity of tenure.

The matter was delayed, however, until 1875 when it was resolved to commence the work of survey and allotment with respect to those of the occupants who were keen to assume title to their garden plots, in view of the fact that the desire to commute the common to individual tenure was by no means unanimous. At first a large number of them did not make use of the opportunity to acquire land in property, due partly to the cost of survey and transfer and partly to their deep and ingrained attachment to communal tenure; but the system of individual tenure of a building plot plus a garden plot of six acres was gradually extended and taken up by all the Fingo locations or settlements, with satisfactory results.

It was now proposed to extend individual tenure to the other Bantu tribes as well, on the assumption that it was conducive to greater industry, enterprise and production, and that a high sense of responsibility would be created by giving them a share in the land. The result was the Glen Grey Act of 1894, which provided for the subdivision of native locations into a sufficient number of arable and residential allotments to enable grants under title being made to native occupiers, the remaining extent being reserved for use as commonage. The grant of land is subject to the payment of a perpetual quitrent of 15s. per five morgen (the average allot-

ment) and 3s. for every additional morgen, and is hereditary according to the law of primogeniture as observed by the natives themselves.

This system of individual land tenure by natives on the native reserves, as elaborated in the Glen Grey Act of 1894, was first applied to the Transkeian Districts of Butterworth, Nqamakwe, Tsomo, and Idutywa, and subsequently extended by Proclamation to the Tembuland Districts of Xalanga, Umtata, and Engcobo. In the Umtata District, for example, 13,000 garden plots were surveyed, and title deeds are in course of preparation.

The main purpose of the Glen Grey Act was to provide against congested areas and to offer inducements to enterprise by granting greater security of tenure. From the purely economic standpoint individual tenure is certainly more conducive to progressive agriculture, greater productivity, working efficiency, responsibility, etc., but one must not overlook the fact that from the social and anthropological standpoints communal tenure is highly desirable. It helps to maintain the solidarity of the tribe and the integrity of tribal traditions and customs which are considered by the anthropologists to be of paramount importance. Individual tenure tends to weaken tribal solidarity, whereby the native is rendered more prone to the demoralising and deteriorating effects of contact with a civilisation far higher than his own. The question is whether the economic advantages of individual tenure outweigh its social disadvantages or not. In any case, however, it seems to be clear that, in order to avoid the evil consequences, the transition from communal to individual tenure must be a gradual one and must coincide more or less with the progress of Bantu civilisation.

In the Cape Province the great bulk of the natives are located on the native reserves or locations, especially in the Transkeian Territories, where land is held by the natives either on communal or individual tenure. While the latter form of tenure, based on perpetual quitrent, has made a good deal of headway amongst the natives during the past 50 years, the former is still by far the most important on the native reserves. Outside of these reserves or locations, specially set apart for native occupation, land is held on freehold, leasehold, quitrent or share tenure, under the same conditions as in the case of Europeans, by natives in urban locations and in locations on private property in rural districts, or as owners or tenants of individual farms, or as servants in the continuous employment of landowners.

In Natal, as in the Cape, no distinction of race or colour is made in respect of the tenure of land, except that reserved for natives. At present about 70,000 acres of land are held in freehold by natives

in Natal, and 35,000 acres in quitrent, while over 200,000 acres of Crown land have been sold to natives on terms and conditions of payment similar to those applying to European purchasers. Then, a large number of natives occupy land, owned by absentee landlords or syndicates and companies, subject to the payment of an annual rental; and on the mission reserves over 30,000 are located, subject to the payment of rent to the trustees of these reserves.

Less than one-half of the Bantu population of Natal is found on the reserves in Zululand and in the 42 locations set apart for the natives in Natal proper, where land is held by the natives communally. In 1918 the first definite step was taken towards introducing individual tenure of land into the native areas of Natal, but hitherto comparatively little has been done in this respect.

In the Transvaal, under the Pretoria Convention of 1881, natives may acquire land subject to its transfer on trust to an officer of the Government. In many cases, however, land purchased by natives has been registered in the names of unofficial Europeans and missionaries as trustees. About one-half of the natives of the Transvaal are located on private land, whether owned by individuals (Europeans) or companies, and pay the owners annual rentals in labour and money varying in amount; and over half a million acres are privately owned by natives and held in trust, having been purchased by tribal subscription and being occupied communally by tribes or portions of tribes. Moreover, large areas of land have been set aside as Government locations for occupation by natives in communal tenure, carrying a population of over 200,000.

In the Orange Free State three areas are reserved for the exclusive occupation of natives, viz., the native reserves of Witzieshoek, Thaba 'Nchu and Seliba. On these Government locations there are about 17,000 natives, who occupy the land tribally. The great bulk of the natives are on private land under conditions similar to those in the Transvaal, *i.e.* subject to the payment of an annual rent in labour or in money or in kind to the owner of the land. In the Orange Free State there is a law in terms of which natives are not allowed to purchase or lease land. In this law, however, special provision was made in respect of natives who owned land in the Thaba 'Nchu District, where about 185,000 acres are owned by natives.

Mineral Lands.—Special provisions have also been made in the case of mineral lands. Mineral laws are in force in all four Provinces of the Union, the main purpose thereof being to secure for the State a fair share of the rich mineral resources of the country, more particularly gold and diamonds. Especially in the Transvaal,

where, under the Gold Laws and the Precious Stones Ordinance of 1903, the right of mining for and disposing of all precious metals and stones is vested in the State, the Union Government has received a considerable revenue of about £12,000,000, since 1910, by virtue of its ownership or partnership rights in gold and diamond mines and diggings.⁸

Forest Lands.—Forest lands have been reserved and developed by the Government, not as a source of net revenue but as the means of preserving the existing forests, increasing the production of timber by the establishment of new plantations, and encouraging the general afforestation of the country by the development of nurseries and the sale of transplants and seeds at very low prices.⁹

Summary.—The various forms of land tenure in vogue in the Union of South Africa may be classified and briefly summarised in the following way :—

- (1) *Freehold Tenure*, where the land is held in “full and free property,” subject only in some cases to reservations in the grant, such as the reservation of minerals by the State or of the right of making public roads ;
- (2) *Quitrent Tenure*, where the land is held in property, with the right to sell and transfer, hereditarily or otherwise, subject to the payment of an annual rent to the State in recognition of its original ownership of the soil ; and to reservation of minerals, right to make public roads, etc. ;
- (3) *Leasehold Tenure*, where the land is held on lease from the Government or private landlords at a fixed annual rental over a number of years, with or without the option of purchase, and subject to the reservation of mineral rights, etc. ;
- (4) *Licence Tenure*, where the land is held on licence from the Government, under the land settlement schemes, subject to the payment of annual instalments of the purchase price over a number of years, and to the reservation of mineral rights, etc. ;
- (5) *Communal Tenure*, where the land is held by natives on communal or tribal tenure on the native reserves ;
- (6) *Share Tenure*, where the land is held and cultivated by European tenants (“bywoners”) and native occupiers of private lands, subject to the contribution of a share of their produce or labour, which is in general determined by oral agreement rather than written contract.

⁸ See section on mining revenue in the chapter on “Public Finance.”

⁹ See section on forestry in the chapter on “Other Extractive Industries.”

CHAPTER 5.

AGRICULTURAL AND PASTORAL INDUSTRY.

Introductory.—The agricultural and pastoral industry, as a joint economic activity, is, and has always been, the principal industry in South Africa. It was the only important economic activity of the country until the beginning of the 19th century, when trade began to develop more rapidly, and it remained the only important industry of South Africa until the development of the diamond mines in the seventies. After the discovery of the extensive Witwatersrand gold fields, the mining industry advanced by leaps and bounds and soon acquired a position of considerable significance in the economic life of the country. For a time it challenged the predominance of the agricultural and pastoral industry, but the development of the mining industry itself created conditions highly favourable to the development of the agricultural and pastoral resources. Accordingly, farming progressed rapidly and was considerably extended in all respects. The foundations for an enlarged structure have been firmly laid down and the building process is in full swing. In recent years there has been a great deal of expansion in most branches of agriculture and stock farming, and there are bright prospects for further expansion on a large scale, provided the Union Government adopt a more progressive agricultural policy and the farmers organise more efficiently so as to be able to make a favourable response to that policy.

Value of Farm Produce.—The value of the agricultural and pastoral production of the Union has been computed, on the basis of the average market and wholesale prices, for the years 1917-22, as stated in the following table :

Value of Agricultural and Pastoral Production of Union (1917-22).

Year.	Value.
	£
1917-18	70,779,000
1918-19	75,514,000
1919-20	110,936,000
1920-21	73,832,000
1921-22	65,768,000

The fluctuations in the value of farm produce are to be attributed partly to differences in the quantity of produce as the result of

variations in the climatic or market conditions or the effects of periodic natural disabilities, and partly to the inflation or the deflation of values resulting mainly from the expansion or contraction of currency and credit.

Pastoral Production.—The value of the pastoral production generally represents about 60 per cent. of the total value of the farm produce. In 1920-21, for example, the value of pastoral produce was £43,743,000 out of a total of £73,832,000. The main pastoral products were, in order of their importance, milk, meat, wool, hides and skins, cream and butter, mohair, and ostrich feathers.

Agricultural Production.—In 1920-21 the agricultural production amounted to about £30,000,000, and the main agricultural products were : maize, wheat, fruit, sugar, vegetables, oats, barley and rye, lucerne and other forage crops, kaffir corn, wine and brandy, tobacco, and cotton.

As a result of the variety of climatic conditions, the agricultural and pastoral production of the Union presents a considerable variety of produce, varying from maize, wheat, tobacco and cotton to such sub-tropical produce as sugar-cane, tea, bananas and pineapples, and from meat, wool, hides and skins to mohair and ostrich feathers.

Production in Provinces.—The following table shows the value of the agricultural and pastoral production in each of the four Provinces of the Union in 1920-21.

Agricultural and Pastoral Production in Provinces of Union (1920-21).

Province.								Value.	
								£	
Cape	..	..	..	..	..	..	..	30,219,000	
Transvaal	..	..	..	..	..	..	..	18,163,000	
Orange Free State			..	..	..	..	..	13,622,000	
Natal	..	..	..	..	..	..	..	11,829,000	
Total for the Union								£73,833,000	

Area under Cultivation.—South Africa is, and has always been, mainly a pastoral country, owing to the fact that the greater part of the country is not readily adapted to agricultural pursuits on account of an insufficient or irregular rainfall. For example, out of the 470,000 square miles of the Union, 185,000 square miles have an average annual rainfall of less than 15 inches, and 355,000 square miles less than 25 inches. The uncertainty of the rainfall

is also an important factor in regard to the limitation of agriculture.

Since the end of the 19th century, however, agriculture has tended to increase in importance relatively to stock farming as the result of a considerable expansion in the local market, improvement of transport facilities, development of an export trade in some agricultural products, improvement of methods and implements, more intensive cultivation, extension of irrigation and dry land cultivation, etc.

The following table shows the total area of farms in the four Provinces of the Union, the area under cultivation, the area under irrigation, and the additional area of irrigable land.

Area of Farms and Land under Cultivation in the Union—April, 1921.

Province.	Area of Farms.	Area under Cultivation.	Area Irrigated.	Additional Area Irrigable.
	Morgen.	Morgen.	Morgen.	Morgen.
Cape	64,291,000	1,404,000	226,000	134,000
Transvaal	21,945,000	1,412,000	107,000	90,000
O.F.S.	14,274,000	1,290,000	42,000	29,000
Natal	4,767,000	486,000	11,000	17,000
Native Reserves and Locations ..	18,396,000	1,557,000	—	—
Total ..	123,673,000	6,149,000	386,000	270,000

Thus, only 5 per cent. of the total area of farms in the Union is used for agricultural purposes. There are, however, fairly large tracts of land in the regions of comparatively reliable rainfall which have not yet been brought under cultivation, but will be cultivated in due course as the farmers realise the possibilities of agriculture more fully, with the continual expansion of the local market and the development of an export trade in agricultural products.

Exports of Farm Produce.—The exports of farm produce consist primarily of pastoral produce, and the exports of pastoral produce are composed mainly of wool, hides and skins, mohair, and ostrich feathers. Almost the entire production of wool, mohair and ostrich feathers, as well as a large proportion of the hides and skins, is exported. The exports of agricultural produce are composed principally of maize, fruit and sugar, and to a small extent, tobacco, cotton, wine and oats.

As the Union exports a considerable quantity of gold, diamonds and other minerals, agricultural and pastoral produce constitutes

on an average only about 23 per cent. of the total exports, as shown in the following table.

Exports of Agricultural and Pastoral Produce.

Year.				Exports of Farm Produce.	Total Exports.	Percentage.
				£	£	%
1910	..	..	..	9,485,000	53,609,000	17·7
1913	..	..	..	12,240,000	66,569,000	18·4
1919	..	..	..	33,064,000	106,403,000	31
1921	..	..	..	17,899,000	74,354,000	24

In recent years the proportion of farm produce has tended to increase in view of the rapid expansion of agriculture and the live-stock industry.

Capital Value of Farming Enterprises.—The capital value of farming enterprises in the Union, in 1921, was estimated by Mr Ernest Glanville in the following manner :

Land	..	..	..	..	£123,673,000
Buildings and Implements	..	..	..	..	£121,500,000
Live-stock	..	..	..	..	£135,463,000
Fruit Orchards	..	..	..	..	£4,587,000
Total				..	£385,223,000

AGRICULTURAL PURSUITS.

(1) *Maize.*—The maize industry, which is to-day the most important branch of the agricultural industry of South Africa, is of comparatively recent growth. Prior to the arrival of the British Settlers in 1820, maize¹ was almost entirely unknown in the Cape Colony, and even for many years after that it was grown in small quantities only. The principal maize-producing areas of the Union of South Africa at the present time are those which were only occupied by Europeans after 1836 ; and it was not until the eighties that the production of maize was undertaken on any appreciable scale.

Cape.—Maize-growing was first conducted on a commercial basis by the British Settlers in the eastern districts of the Cape, now known as Bathurst, Peddie, Albany, Victoria East, Fort Beaufort and Alexandria. In the fifties it was extended to British Kaffraria, and subsequently to all the Transkeian native terri-

¹ Also known as mealies or Indian corn, which is indigenous to the American Continent.

teritories now included in the Cape Province. In these native territories maize became, in due course, the staple crop and the staple food of the natives. But in those parts of the Cape which were occupied by Europeans prior to the arrival of the British Settlers, maize-growing has until this day not made much headway owing to unfavourable climatic and other conditions. Where maize is grown in the Cape Province, outside of the eastern districts and the native territories, it is regarded merely as a subsidiary crop.

By 1865 no more than 108,000 bags of maize were produced in the Cape Colony, the south-western districts contributing 16,000 bags and the eastern districts 92,000; and by 1875 the number of bags of maize and kaffir-corn together was only 371,000, of which the districts of Kingwilliamstown and East London yielded about one-half, followed by Queenstown, Bedford, Peddie, Aliwal North, Wodehouse, Victoria East, etc. Then the movement was accelerated, and maize-growing was undertaken more extensively, increasing the production of maize in the Cape Colony to 965,000 bags in 1891, 1,728,000 in 1911, 2,387,000 in 1918 and 3,921,000 in 1923. At present the Transkeian native territories account for about three-quarters of the maize produced in the Cape Province.

Natal.—In Natal maize was grown soon after its occupation by Europeans. As early as 1845 maize to the value of £858 was exported through Port Natal. In 1862 6,000 bags of maize were exported, rising to 56,000 in 1886 and 350,000 in 1905. Then the Transvaal and the Orange Free State began to produce maize on a large scale, leading to a rapid increase in the export of maize through Durban to 913,000 bags in 1909 and 2,089,000 in 1921. In 1891 the total production of maize in Natal was 850,000 bags, of which the natives raised 591,000 bags, whereas in 1918 Natal produced 1,440,000 bags of maize, of which about one-half was raised on the native reserves, including Zululand.

Transvaal.—In the Transvaal maize-growing was not undertaken on a large scale until the early nineties, when the rise of the mining industry opened up a wider local market. The construction of railways at that time also contributed to the development of the maize industry, but in view of the prohibitive rates charged by the Netherlands South African Railway Company the production of maize was confined to the local market only. During the first ten years of the Witwatersrand gold-mining industry (1886-96), large quantities of maize were annually imported for consumption on the Rand mainly by the thousands of native employees in the mines. With the existing facilities of transportation and agricultural production, the farmers of the Transvaal could not increase

their production of maize to such an extent as to meet the increased local demand until about 1896, when the annual consumption of maize on the Rand was reported to have been 800,000 bags. In the last three years of the South African Republic maize was still imported from time to time, but in relatively small quantities only. With certain exceptions local production had come up to the level of local consumption.

But after the Boer War, with the provision of better and cheaper transportation facilities and the expansion of the local market consequent upon the rapid development of the gold-mining and allied industries, maize-growing was undertaken with vigour in many parts of the Transvaal, especially the south-western districts. Accordingly the production advanced very rapidly, from 1,304,000 bags in 1904 to 3,311,000 in 1911, 4,554,000 in 1918 and 5,948,000 in 1923.

Orange Free State.—In the Orange Free State maize was not grown on any considerable scale until the beginning of the 20th century. In 1880 the Orange Free State produced only 99,000 bags of maize, of which 75,000 bags were contributed by the districts of Harrismith, Ladybrand, Kroonstad, and Heilbron. By 1904 the production of maize was still less than 400,000 bags. The main causes of this slow growth of the maize industry in the O.F.S., prior to 1904, were the lack of adequate railway facilities and the limited local market. But, on the improvement of railway and other transportation facilities and the development of an export trade, maize-growing progressed and expanded with astonishing rapidity in the O.F.S., the production increasing from 388,000 bags in 1904 to 1,788,000 in 1911, 4,255,000 in 1918 and 7,187,000 in 1923. To-day the northern and eastern districts of the O.F.S. are the principal producers of maize in the Union.

Development of Maize Industry in South Africa.—The following table shows the growth of the maize industry in South Africa since 1865.

Production of Maize in South Africa (1865-1923)—200lb. bags.

Year.	Cape.	Transvaal.	O.F.S.	Natal.	Union.
1865 ..	108,000	—	—	—	—
1880 ..	—	—	99,000	—	—
1891 ..	965,000	—	186,000	850,000	—
1904 ..	1,131,000	1,304,000	388,000	789,000	3,612,000
1911 ..	1,728,000	3,311,000	1,788,000	1,806,000	8,633,000
1918 ..	2,387,000	4,554,000	4,255,000	1,444,000	12,640,000
1923 ..	3,921,000	5,948,000	7,187,000	1,984,000	19,040,000

In the Union of South Africa maize-growing is almost entirely restricted to the summer rainfall areas. The maize belt of the Union, *i.e.*, the area within which maize can be grown to the best advantage, has come to be more or less clearly defined. Maize is not a resistant of drought and thrives well only in regions where considerable summer heat is accompanied by fairly plentiful rains falling in heavy showers at short regular intervals; and it is this characteristic which has limited the large-scale production of maize to the eastern districts of the Cape Province, the mid-lands of Natal, the north-eastern districts of the Orange Free State and the south-western districts of the Transvaal. Thus, the maize belt may be defined as comprising the territory lying east of a line drawn from Port Elizabeth in the south through Bloemfontein to Zeerust in the north, exclusive of coastal areas below an altitude of 1,000 feet and mountain regions above 6,000 feet.

Within this maize belt there is the so-called "maize triangle," *i.e.*, the triangle formed by joining Mafeking (on the border of Bechuanaland and Transvaal), Belfast in the Transvaal, and Weeper in the Orange Free State. This triangle embraces the most productive maize-growing areas in the Union, *viz.*, the districts of Heilbron, Frankfort, Kroonstad, Lindley, Bethlehem, Senekal, Ladybrand, Ficksburg and Vredefort in the Orange Free State, and the districts of Bethal, Heidelberg, Standerton, Potchefstroom, Lichtenburg and Wolmaransstad in the Transvaal. It is estimated that the "maize triangle" yields about 60 per cent. of the total production of maize in the Union; and this is almost entirely produced on lands belonging to Europeans, whereas of the remaining 40 per cent. about one-half is produced on the native reserves, principally the Transkeian Territories and Zululand.

The remarkable development of the maize industry in South Africa since 1904 is to be attributed to:

- (1) the extension of roads and railways and the introduction of low railway rates in respect of grain conveyed over long distances;
- (2) the growth of the export trade in maize;
- (3) the considerable expansion of the local demand for maize as a result of the increase in the population and in the uses of maize;
- (4) the introduction of improved agricultural methods and implements and the assistance rendered by the State and co-operative societies.

Export of Maize.—Prior to the Boer War South Africa did not, as a general rule, produce sufficient maize for local consumption.

The end of the 19th century found the Transvaal and the O.F.S. producing barely sufficient maize for their own needs, whereas in the Cape there was a deficiency, and the surplus of Natal in good years was not sufficient to offset the deficiency. Accordingly maize was imported from time to time in varying quantities. After the Boer War, however, maize-growing was promoted and developed to such an extent that by 1906-7 over 400,000 bags of maize were exported from South Africa. Then the railway rates in respect of maize were revised with a view to promoting the export of maize, so that in 1908-9 1,551,000 bags of maize were exported. Since that time, with certain variations and fluctuations, due to droughts, floods, locusts, low prices or other causes, the export of maize and maize-meal has steadily grown, reaching the record of 5,700,000 bags in 1923.

Export of Maize (in the grain) from South Africa (1906-7 to 1923-24).

Year.	Number of 200 lb. bags of Maize.
1906-07	464,000
1908-09	1,551,000
1911-12	833,000
1915-16	2,123,000
1917-18	3,293,000
1919-20	1,067,000
1921-22	3,295,000
1922-23	1,741,000
1923-24	5,300,000

In addition to this, certain quantities of maize meal, hominy chop, maize grit and maize flour are exported every year. South African maize is exported mainly to Great Britain, and to a smaller extent to Germany, Holland, Belgium, Australia, etc.

Local Uses of Maize.—The normal consumption of maize in the Union, at the present time, is estimated to be about nine million bags per annum. It is used primarily for human consumption in the form of maize meal. For this purpose $5\frac{1}{2}$ million bags of maize were ground as maize meal in 1920-21, as compared with about $2\frac{3}{4}$ million bags in 1910-11.

Maize meal serves, in the first place, as the staple food of the large native population of the Union. Secondly, it forms a part of the diet of many European families, although it has not by any means displaced wheat in the dietary of the white population, except in cases of dire necessity. It is only as a supplementary article of diet that maize meal has found favour with the European population of South Africa, and as such it has proved to be a very

nourishing and economical food. It is used mainly for making porridge, and to a smaller extent for mixing with wheaten flour in bread or making griddle cakes, pastry, etc.

Such articles as maizena, maizeka and corn flour are also obtained from maize and used for making blanc-mange, custard and various puddings.

Furthermore, maize serves as an important foodstuff for live-stock. It provides a great variety of stock feeds, such as maize meal and maize silage for dairy cows, grain and silage for fattening slaughter oxen, crushed grain for horses, pigs, or poultry, and maize-stover as winter feed for cattle or sheep. The use of maize for these purposes has been considerably increased in recent years and will, in view of the great economic value of maize as stock feed, be vastly increased in the future. In America the great bulk of the maize crop is devoted to the feeding of live-stock.

Finally, maize is being used in increasing quantities for various industrial purposes, such as the manufacture of starch, glucose, syrup, maize-oil, oilcake and gluten feed, and may be used for the production of industrial alcohol.

State Assistance.—The State has rendered a great deal of assistance in connection with the development of the maize industry. At the Experiment Stations situated within the maize belt, extensive experiments are carried out with a view to determining which are the best varieties of maize to grow, the best systems of rotation to be practised, and the fertilisers most suitable to local soil needs. The varieties of maize and the methods of cultivation have undergone considerable change within the last 30 years. The early, low-yielding *flint* varieties, such as the *Botmans*, have been almost entirely eliminated from South Africa, with the exception of the native reserves; and the improved, high-yielding *dent* varieties, such as the *Hickory*, *Eureka*, *Chester*, *County Mammoth* and *Potchefstroom Pearl*, which were introduced by the Department of Agriculture and acclimatised and improved by constant selection at Government experiment farms, have in course of time become generally distributed. Large quantities of pure selected seed are issued to farmers at a moderate price; and a staff of trained experimentalists and instructors, resident and itinerant, is maintained to give advice by correspondence and by lecture.

Moreover, since the establishment of the Union, elaborate arrangements have been made for the export of maize under Government supervision. Provision has been made for a system of grain inspection and grading at shipping points, low railway rates have been instituted from the interior to the ports, and endeavours

are made to maintain a regular and cheap shipping service for the export trade in maize.

Marketing of Maize.—In recent years great improvements have been made in the marketing of maize in the Union. Co-operative societies and similar organisations have been established in various parts of South Africa for the handling of maize, and large sums of money are annually advanced by the Land Bank to these co-operative societies for the financing of their transactions. The system of marketing will be further revolutionised in the near future by the institution of a national service of grain elevators, under the Department of Railways and Harbours. The year 1924 will witness the completion of two terminal elevators at Durban and Cape Town, and 33 country elevators at various centres in the maize belt. This will render possible the issue of “negotiable certificates” for all maize delivered to the elevator, and these certificates will provide security for advances from the local banks, thereby eliminating the necessity of selling the maize crop immediately after the harvest.

Moreover, the system of grain elevators will also eliminate a great deal of wastage and will effect considerable savings by the reduction in railage, freight and handling charges owing to the absence of bags, repeated use of the same bags on farms, the reduction of labour at the ports, quicker loading and discharge of ships, convenience of stowing on board, etc.

Conclusion.—Since 1904 there has been an exceptional development of the maize industry in South Africa, but there is still considerable scope for further expansion. The present production of maize can be easily doubled, within the following 10 or 20 years, not only by extending the acreage under maize cultivation, but also by adopting more scientific and intensive methods of agriculture.

The maize belt of South Africa is admirably suited to maize-growing and has two distinct advantages over the “corn belt” of the United States. In the first place the growing season is longer by from four to seven weeks, as a result of which there is a longer period for planting. Secondly, the drier atmospheric conditions in South Africa during the period when the maize matures, result in the production of maize with a lower moisture content. As such it is less liable to deterioration during transit, and consequently more suitable for export, as well as for manufacturing purposes. In this maize belt there are large areas of suitable land which have not yet been brought under maize cultivation, but are used or grazing cattle and sheep. At present only 15 per cent. of the

land in the maize districts of the Transvaal and Orange Free State is used for maize-growing.

The average yield of maize per morgen in the maize area of the Union, *viz.*, 5 bags, is very much lower than in the corn belt of the United States, *viz.*, 17 bags. This great difference in the yield is to be attributed partly to the difference in rainfall and fertility of the soil, but largely to the more scientific methods and the more intensive cultivation of maize in America. Maize is known to respond very favourably to intensive cultivation, and our experts are of opinion that, with the application of the modern methods of maize culture, the maize belt of the Union is capable of yielding an average of 12 bags per morgen.

The problem of markets for our increased production is not embarrassing. There is a growing demand for our maize in Europe, and the local market is expanding very rapidly, not only in the case of maize for human consumption but also as feed for all sorts of live-stock.

(2) *Kaffir Corn and Other Grain Sorghums.*—In the Union of South Africa two types of grain sorghums are grown, *viz.*, the so-called *Kaffir Corn* and the *Durras*. The former is indigenous to South Africa and was grown by the Bantu tribes prior to the occupation of the country by Europeans. The red and white varieties of *Kaffir Corn*, which have all along been cultivated principally by the natives for the purpose of their own consumption, either in the form of porridge or of an alcoholic drink obtained by a process of fermentation, still constitute the bulk of the sorghum production of the Union. The *Durras* are of North African origin and include the brown, white and yellow varieties. Hitherto they have not been grown to any great extent in South Africa, but are now attracting the attention of the authorities and the farming community in view of their marked success in the United States.

This species of grain has been largely neglected by European farmers in the Union. For example, out of a total production of 1,801,000 bags of kaffir corn in 1918, the native reserves and locations accounted for 1,338,000 bags. Yet it is well suited to the large semi-arid regions of the country where maize cannot be grown successfully. In the case of kaffir corn, continuity of growth is not essential owing to its power of remaining dormant during intervals of drought, and of resuming growth when the rains recur. It was this remarkable characteristic which prompted the United States, about thirty or forty years ago, to introduce kaffir corn from South Africa for distribution in the semi-arid western

areas where the rainfall is not sufficient for the successful production of maize. In those regions of America kaffir corn and other grain sorghums have almost entirely displaced maize, as they yield a more certain crop under the prevailing conditions, and have been considerably improved by selection and experimentation. They are grown for use as fodder in the green state, or as silage, or as a dry forage, or as grain. The average sorghum production in the United States is about 25 million bags per annum, as compared with two million in the Union.

Hitherto the production of kaffir corn has not made any considerable progress in South Africa, as shown in the following table :

Production of Kaffir Corn in South Africa—200 lb. bags.

Year.	Cape.	Transvaal.	O.F.S.	Natal.	Union.
1891 ..	462,000	—	—	394,000	—
1904 ..	325,000	506,000	85,000	—	—
1911 ..	300,000	463,000	191,000	594,000	1,548,000
1918 ..	466,000	837,000	161,000	337,000	1,801,000
1923 ..	458,000	677,000	410,000	317,000	2,057,000

The great bulk of the kaffir corn is produced and consumed by the natives, with a small surplus for export from time to time. It is grown along with maize in the maize belt of the Union, mainly by natives, but to a small extent also by European farmers. In some parts of the maize belt it has come to displace maize and wheat, while in other parts it has in turn been displaced by maize. But kaffir corn has made little headway in the extensive semi-arid regions of South Africa, where the farmers have not yet realised the great economic value of this plant or grain as feed for live stock, as manifested by experience in the semi-arid regions of America, India, China, Mesopotamia, Syria, etc. It is the best available species of grain for the dry western and north-western areas of the Transvaal and O.F.S., especially those bordering on the Kalahari, where the rainfall is scanty and erratic and where it will yield a more certain crop than maize or wheat, being a drought and locust-resistant crop.

Efforts are being made by the Union Department of Agriculture to introduce kaffir corn into the semi-arid regions outside the maize belt. A number of varieties of improved kaffir corn and other grain sorghums have been imported by the Department from America and other countries, and experiments are conducted with a view to determining which of these varieties are best suited to the

conditions prevailing in each of the dry areas of the Union. The growing of kaffir corn as a fodder crop will render possible more intensive stock farming. As green forage or dry forage or silage it is almost the equal of maize. The grain of kaffir corn is very little inferior to that of maize, with a slightly higher proportion of starch and a slightly lower proportion of protein. Its high starch content makes it of great value for malting purposes, either as "Nutrine" for the feeding of infants or as a malted meal for brewing. Moreover, high-grade kaffir corn meal makes an excellent breakfast food.

There is thus great scope for the expansion of this branch of the agricultural industry.

(3) *Wheat*.—Wheat was successfully grown at the Cape from the earliest days of its colonisation by the Dutch East India Company. The production of wheat in excess of the requirements of the individual farmers was encouraged by the Company, from the outset, so as to secure an adequate supply of wheat and wheaten bread for its officials and other civil employees, the garrison, and the ships of the Company sailing between Holland and the East Indies. During the first fifty years, however, the farmers were not fully able to produce sufficient grain for local requirements, including those of the ships calling at the Cape, in view of the initial difficulties of clearing and tilling new land with primitive implements and methods of cultivation; and accordingly rice had to be imported from the East Indies, from time to time, to make up for the deficiency of wheat.

In the beginning of the 18th century, during the Governorship of Adriaan van der Stel, the tendency to the periodic overproduction of wheat in years of good harvests began to manifest itself clearly; and since the restrictions on foreign trade deprived the colonists of the opportunity of finding overseas markets, while the local demand was of very limited extent and expanded slowly, the extension of wheat-growing was considerably retarded and governed, throughout the 18th century, by the steady growth of the population of the colony and the fluctuations in the size of the Company's civil and military establishment and in the number of ships calling at the Cape. In good years many farmers could not dispose of their surplus grain at satisfactory prices or even at all, and consequently adopted the custom of sowing only sufficient wheat to meet the needs of their own families and pay the tithe to the Company.

At certain times the Company exported small quantities of wheat from the Cape to the Netherlands and the East in order to relieve the glut on the local market, but this was a precarious method and depended entirely upon the goodwill of the Company.

On other occasions, when French or English warships were stationed at the Cape or called at the Cape on their way to India, the farmers also had the opportunity of disposing of their surplus produce. But in general, owing to the limited market available under the circumstances, there was a constant tendency to the overproduction of wheat and the lowering of prices, which exercised a restraining influence upon the development of wheat-growing.

In the beginning of the 19th century, however, the improvement of market opportunities gave an impetus to the expansion of grain-farming. In the first place, greater freedom of trade was allowed than under the Company. Secondly, at the time of the second British occupation of the Cape, in 1806, a large military and naval force was stationed at the Cape for the purpose of defence, providing a profitable market for agricultural produce. Thirdly, the permanent population of Cape Town increased from 15,500 in 1798 to 16,500 in 1806 and 19,500 in 1821. And fourthly, during the period from 1815 to 1821 the Island of St. Helena, where a garrison and a squadron were stationed for the purpose of guarding Napoleon, afforded a good market for Cape produce. As a result of this, the number of muids of wheat brought into Cape Town for sale advanced from an average of 30,000 in 1804-6 to 50,000 in 1812-18.

In 1818 the total production of wheat in the colony was reported to be 170,000 muids, as compared with 138,000 in 1806.

Then the wheat industry received a temporary setback. There were bad harvests in 1819 and 1821; the garrison at the Cape had been gradually reduced after the conclusion of peace in Europe until, in 1821, it did not exceed 2,500 men, whereas in 1814 there had been more than 4,000 soldiers in the colony; and on the death of Napoleon in 1821, the garrison and the squadron were withdrawn from St. Helena. The population was indeed increased by the arrival of the 4,000 British settlers in 1820-21, but most of these were settled on land on the eastern frontier of the colony, where the wheat crops turned out to be failures for several years in succession, owing to rust and floods. The result of this state of affairs was a severe agricultural depression during the years 1821-24.

Subsequent to 1824, however, the wheat industry entered upon a new and brighter era. Many of the British settlers abandoned their farms and drifted into other occupations. Some found employment as handicraftsmen in the towns and villages, while the others commenced to trade with the farmers and natives. The remainder overcame the initial obstacles, enlarged their holdings and carried on sheep-raising along with agriculture. Certain areas were found to be suitable for the cultivation of wheat and were

regularly used for that purpose, since the newly-constituted towns, Grahamstown and Port Elizabeth, and the troops on the frontier provided a profitable market. Various economic forces were at work at the time, tending to promote the development and extension of wheat-growing in the south-western as well as the eastern districts of the Cape. In the first place, the growth of commerce and the expansion of the handicrafts and allied industrial occupations widened the local market for agricultural produce. Secondly, in 1826 the Cape Government introduced an import duty of 8d. per bag of 200 lbs. upon all imported wheat and 2s. per barrel of 182 lbs. of flour. Thirdly, various improvements in agricultural methods and implements were undertaken from time to time, largely under the stimulus of the two Government experimental farms. English ploughs were increasingly used, acting with more force and better effect in the breaking up of hard land for wheat; mules were bred for the purpose of providing the grain farmers with more efficient draught animals, etc. And fourthly, in years of good harvests an outlet was found in the exportation of the surplus produce to foreign markets.

The production of wheat in the Cape Colony now progressed rapidly, from 170,000 muids in 1818 to 400,000 in 1853 and 463,000 in 1865. In the latter year the districts westward of Oudtshoorn yielded 358,000 muids, and those to the east 105,000. In the former group Malmesbury was the leading producer, followed by Oudtshoorn, Caledon, Piquetberg, Cape, Namaqualand, Clanwilliam, etc.; and in the latter group Graaff-Reinet led the way, followed by Humansdorp, Alexandria, Cradock, Colesberg, etc. By 1875 the districts of Queenstown and Kingwilliamstown had also become important producers of wheat.

The rise of the mining industry and the improvement of transport facilities naturally gave a considerable impetus to the development of wheat-growing. By 1891 the production of wheat in the Cape had risen to 909,000 bags or muids, and many significant improvements had been brought about in the methods of farming. In general, the wheat farmers had come to learn something of the economic value of manure and fertilisers, a more thorough cultivation of the soil, and the use of labour-saving appliances. In many parts of the colony reaping was still performed by means of scythes and sickles in the hands of coloured labourers, who were grouped in teams of six reapers, two sheaf-makers and two binders, the one team vying with the other; but reaping machines of the stripper type were rapidly displacing the scythe and the sickle, and the self-binder machine was again gradually displacing the stripper. Threshing was performed to a certain extent by steam

threshing machines, but mainly by the eight-horse threshers; and in some parts the primitive practice of tramping still prevailed.

Moreover, with a view to improving the yield and the rust-resisting capacity of the wheat grown in the colony, the Cape Government imported a number of varieties of wheat for distribution in small quantities to representative farmers. This met with a great deal of success in the south-western districts, but in some of the eastern coast districts, chiefly Alexandria, Lower Albany, Peddie and East London, rust could not be overcome, and the acreage of land under wheat gradually contracted.

The development of mining had also promoted the production of wheat in the Orange Free State and the Transvaal. In 1880 the former had yielded only 93,000 bags of wheat, and the latter an insignificant quantity, whereas in 1891 the O.F.S. produced 204,000 bags, mainly in the "conquered territory" on the border of Basutoland, and the Transvaal also recorded a substantial increase. The Boer War caused a severe setback for a time, but subsequently progress was resumed and expansion took place, which was severely restricted, however, by the relatively unfavourable climatic conditions for wheat-growing and the favourable conditions for maize-growing. In Natal also the conditions favour maize rather than wheat, and consequently wheat has never gained much headway there.

Production of Wheat in the Union (1793-1923)—200lb. bags.

Year.	Cape.	Transvaal.	O.F.S.	Natal.	Union.
1793 ..	129,000	—	—	—	129,000
1818 ..	170,000	—	—	—	170,000
1853 ..	400,000	—	—	—	—
1875 ..	563,000	—	—	—	—
1880 ..	—	—	93,000	—	—
1891 ..	909,000	—	204,000	2,000	—
1904 ..	567,000	75,000	64,000	2,000	708,000
1911 ..	1,305,000	265,000	233,000	7,000	1,810,000
1917 ..	2,482,000	243,000	316,000	4,000	3,045,000
1923 ..	1,568,000	227,000	92,000	4,000	1,891,000

During the decade from 1910 to 1920 the average production of wheat in the Union of South Africa was 2,200,000 bags per annum, as compared with the average annual consumption of 3,500,000 bags. Unlike the other British Dominions, the United States of America and the Argentine Republic, South Africa does not even produce sufficient wheat for local requirements and has to import,

on an average, about 1,300,000 bags of wheat and wheaten flour per annum, mainly from Australia, Argentine and Canada. It is since the nineties that South Africa has become a wheat-importing country, in spite of an import duty of 2s. per bag of wheat.

Stages of Development.—The development of wheat-growing in South Africa may therefore be divided into four distinct periods :

(1) The first fifty years of Dutch occupation of the Cape (1652-1702), when the colonists could not produce sufficient wheat for local needs and rice had to be imported from the East Indies ;

(2) from the beginning of the 18th century till the beginning of the 19th century, when the production of wheat constantly tended to exceed the local demand and the surplus could not be exported in view of the restrictions on foreign trade ;

(3) from the beginning of the 19th century till the nineties, during which period the local demand for wheat increased more rapidly and production proceeded more or less in accord with the demand, the increase in production coinciding with the growth of population, industry, trade, and transportation, and periodic surpluses being disposed of by exportation to foreign markets or periodic failures of crops being counteracted by importation from abroad ; and

(4) the last thirty years, when the rapid growth of the population under the stimulus of the mining industry placed a severe strain on the limited wheat-producing capacity of the country and brought about a chronic deficiency of wheat and the necessity of importing even in years of exceptionally good harvests as in 1917-18, the year which produced the record crop of three million bags.

Wheat-Producing Capacity.—The limited wheat-producing capacity of South Africa is to be attributed to the following factors :

(a) The limited area of reliable winter rainfall. The south-western districts of the Cape represent practically the only regions where winter rains occur with any considerable degree of regularity, and even in those regions there are some parts which are more suitable for oats, fruit, wine, vegetables and tobacco than wheat. The districts of Malmesbury, Caledon, Bredasdorp, Piquetberg and the Cape are the principal producers of wheat and have a rainfall which ranges from 18 to 28 inches per annum, mainly from May to August.

The remainder of the Union is for the most part either semi-arid or in the summer-rainfall area, where the climatic conditions are not suited to the production of wheat. Under a summer rainfall the atmospheric conditions cause rust in an acute form, which renders it necessary to grow wheat mainly in the winter or dry months with the aid of irrigation facilities or dry land cultivation.

In these areas, however, maize affords a more certain and profitable crop and has restricted the extension of wheat and even diminished the acreage under wheat in the north-east of the O.F.S. in recent years.

The Cape Province produces generally about 80 per cent. of the wheat of the Union, and in the Cape the south-western districts yield the major portion of the production ; so that those districts still constitute the granary of South Africa as in the early days of colonisation.

(b) The comparatively low natural fertility of the soil in the greater part of the winter-rainfall area where wheat is grown as a regular crop on a large scale. Although the soil in the south-western districts of the Cape has undoubtedly been diminished in fertility, as the result of unscientific and haphazard methods of cultivation, there does not appear to be any evidence to show that the soil ever possessed a high degree of fertility. In 1745, with primitive implements and a minimum of labour applied to cultivation, 3,276 muids of wheat were sown and 27,438 muids threshed, *i.e.* an average return of eight muids for one ; in 1818, with slightly improved methods, 16,077 muids were sown and 169,740 threshed, *i.e.* an average return of $10\frac{1}{2}$ for one ; in 1865 the production of wheat in the Cape was 463,000 muids, and 95,000 morgen of land were reported to have been under wheat, *i.e.* an average yield of five muids per morgen or 12 muids for one ; in 1891, with a great variety in the fertility of the land under wheat and in the methods of cultivation, the return of wheat varied from 10 to 25 for one, or from $3\frac{1}{2}$ to 8 muids per morgen ;² subsequently agricultural methods were considerably improved and the use of fertilisers became more common, so that in 1910 the average return of wheat in the wheat districts of the Western Province was between 15 and 20 for one.

Then, signs of gradual exhaustion of the soil, in the absence of scientific manurial treatment and proper rotation of crops, became apparent. Prior to that time the diminishing fertility of the soil could be more than counteracted by improvements in methods and implements and the use, though rather indiscriminate, of fertilisers, but by 1910 the wheat-farming community seemed to have reached the stage where their capacity for further improvement and adaptation was inadequate in their struggle against the forces of Nature. Accordingly, the return of wheat has diminished in quantity, the average for the last few years for the Cape as well as the whole of the Union being about five or six muids per morgen, or about 12

² Equivalent to "from 5 to 12 bushels per acre."

for one,³ which is very low indeed in comparison with the yield of wheat in other wheat-growing countries.

(c) Unscientific and unprogressive methods of farming, due mainly to the lack of a suitable system of rural education and of rendering the results of experiments accessible to the farmers.

Future of Wheat Industry.—The wheat industry is now involved in a serious crisis as a result of the fact that the price of wheat, based upon the cost of landing foreign wheat plus the import duty of 2s. per bag, is barely sufficient to cover the high cost of production caused by the low yield per acre, leaving a very small margin of profit, in some cases none at all. Stock farming has indeed proved to be a profitable adjunct to wheat-growing and has been instrumental in keeping the heads of most wheat farmers above water, but even this profit has now become inadequate in many cases.

The future of the wheat industry in the south-western districts of the Cape depends largely upon the application of more scientific manurial treatment to the relatively low-yielding soil, in conjunction with the most economical combination of agriculture and stock farming. The soil is in general very deficient in phosphoric acid, and also in nitrates, owing to the fact that the dry summers tend to prevent the accumulation of organic matter and the wet winters to leach out of the soil such nitrates as are produced. It is also deficient in lime, and to a less extent in potash. For a number of years the Elsenburg School of Agriculture has conducted a variety of experiments with a view to ascertaining in what quantities and proportions those chemical constituents are present in available forms in the soils of the Western Province, and in what proportions commercial fertilisers must be mixed and administered in order to provide the requisite plant food and ensure the most profitable wheat crop under the prevailing conditions. And in recent years Dr. Jerwitz, of the German Potash Syndicate, has undertaken the task of making similar experiments on a large number of farms in the principal wheat-growing districts, with remarkable success. Already a variety of formulæ and prescriptions have been sufficiently systematised and standardised, on the basis of the results of the experiments, to permit of general application. The method of experimenting on representative farms throughout the south-western districts is more convincing to

³ In South Africa wheat is usually sown at the rate of about 40 or 50 lbs. per acre, as compared with 120 lbs. or more in the case of Great Britain, local experience having shown a thin seeding to be all that the soil can nourish to maturity.

the farming community, and may very likely revolutionise wheat-growing and render it capable of being considerably extended.

A great deal of attention has also been devoted by the Elsenburg School of Agriculture to the production of more prolific strains of wheat, an increase in the number of live stock on farms with a view to providing a larger quantity of organic matter for the soil, and a system of crop rotation which will maintain and improve the fertility of the soil. Satisfactory crop rotations, however, are not easy to devise on account of the dry summers, the consequent difficulty in growing crops in the summer, particularly legumes, and the fact that in introducing green manures into the rotation they will compete with wheat for the time available for seeding. Experimentation has brought to light several significant improvements which will make a notable contribution to the expansion of wheat-growing, provided the results of such experiments are brought home to the farmers in a convincing manner.

Thus, the production of wheat in the Union of South Africa can be considerably increased, in the south-western districts of the Cape, by more scientific manurial treatment, more intensive cultivation and better methods of cultivation, and in the other areas by the extension of irrigation facilities and dry-land cultivation.

(4) *Oats, Barley and Rye*.—Oats, barley and rye were also grown at the Cape by the early Dutch settlers, but until the beginning of the 19th century it was only barley that was grown to any great extent. Barley, with wheat chaff, served as the main feed for horses, and in some cases the bread consumed by slaves was made wholly or in part from barley flour. In the days of the Company a very small quantity of oats was produced in the colony, but after the British occupation oats were sown to a greater extent for the purpose of making hay as feed for live stock as well as threshing out the grain mainly for horses. Rye did not make substantial progress until the middle of the 19th century.

The production of oats, barley and rye was, and is still, governed by the same factors as in the case of wheat. As the local market expanded, or transportation facilities were improved, or better implements and methods of cultivation were introduced, the production was accordingly increased and also undertaken in the O.F.S., the Transvaal and Natal, although, no less than in the case of wheat, the Cape still produces the great bulk of the oats, barley and rye in the Union, and in the Cape Province again the south-western districts represent the principal producers. The future expansion of these cereals also depends upon more scientific manurial treatment.

Production of Oats, Barley, and Rye in South Africa (1818-1921).

Year.	Oats.		Barley.	Rye.
	Grain.	Oathay.		
	150 lb. bags.	Tons.	150 lb. bags.	200 lb. bags.
1818	52,000	—	71,000	6,500
1865	144,000	28,400	103,000	58,000
1904	871,000	—	323,000	95,000
1911	2,061,000	—	408,000	202,000
1921	1,275,000	185,000	347,000	221,000

Oats, barley and rye are now used on a large scale as feeding-stuffs for live stock. Oats are consumed by stock in the form of grain or hay, or are grazed off by stock; barley in the form of grain or green forage, or grazed off; and rye in the form of grain or meal, or green feeding for lambing ewes. Besides, barley is used for malting purposes, oats for oatmeal as breakfast porridge, and the straw of rye for thatching roofs.

Barley requires particularly favourable conditions of soil and climate, but oats will grow more satisfactorily than wheat upon poor soils, and rye can be grown on soils which are not suited to the cultivation of wheat, oats or barley.

In 1921, according to agricultural census returns, the value of oats in all forms, on the farm, was estimated to be £1,967,000, rye £668,000, and barley £354,000.

(5) *Lucerne and Other Forage Crops.*—Lucerne⁴ is the most important and most valuable forage crop in South Africa. It was introduced into the Cape Colony about the middle of the 19th century and was grown on a relatively small scale at first, but the rise of the ostrich feather industry in the seventies and eighties gave a tremendous impetus to lucerne-growing, as lucerne pasturage was found to be essential to the feeding of ostriches for the production of first-class feathers. As ostrich farming developed and expanded, lucerne-growing was undertaken on a larger and larger scale and lucerne was given a unique opportunity of demonstrating its nutritive and high yielding qualities.

Lucerne is a highly nutritious food for all kinds of live stock and is well adapted to irrigated lands in the Union, where the long growing season and the sunny climate conduce, on good loam soils, to a heavy yield of pasture or hay. The development of irrigation together with the expansion of the live stock industry in recent

⁴ Also known as alfalfa.

years has very rapidly advanced the cultivation of lucerne. Lucerne serves as a profitable basis for various types of irrigation farming. It may be grown for the purpose of making hay for sale as a cash crop, or feeding cattle, sheep, pigs, poultry, etc., on the farm and marketing the dairy produce, beef, mutton, pork, eggs, etc., or producing seed.

Lucerne may be used in various ways. In the first place, under certain circumstances and with certain precautions it may be used to great advantage for pasturage purposes, having a high carrying capacity as pasture. Secondly, it may be used as green forage, especially for dairy cows and young stock. And thirdly, it may be used in the form of hay.

Lucerne hay is of inestimable value, in the case of dairy cows, by virtue of its palatability, its laxative properties, and its high protein and mineral content, all of which are essential to milk production ; and it is also excellent for fattening stock, as it supplies a large quantity of nitrogenous matter.

The potential lucerne production of the Union is governed mainly by the extent to which irrigation facilities can be provided and the expansion of the local market for lucerne hay as well as the export trade in that commodity. Lucerne hay is being increasingly used in connection with the dairy industry and is likely to become an important supplement to grazing in the development of the beef export trade. Moreover, in recent years experiments have been made with the exportation of lucerne hay to England and Holland, with a fair measure of success, and there is a likelihood of a substantial export trade in the future.

Hitherto lucerne has proved to be one of the most profitable crops to grow under irrigation. Many irrigation projects have been taken in hand which will open up a large area of irrigable land ; and there is still a large extent of deep loam soil capable of being irrigated, especially along the numerous small rivers throughout the country.

A great deal of attention is now being given also to the production of lucerne seed, mainly in the Oudtshoorn district, and in recent years an export trade has even been set on foot. For example, in 1919-20 1,662,000 lbs. of lucerne seed were exported to England, the United States, Australia and New Zealand, and in 1921-22 972,000 lbs.

Besides lucerne, forage crops such as teff, manna and other cultivated grasses are also grown in the Union. Lucerne is grown principally in the Cape, teff in the Transvaal, and manna in the O.F.S. and Transvaal.

Forage Crops in the Union (1921).

Description.	Lucerne.	Teff.	Manna.	Other Grasses.
Area under Cultivation—				
Acres	142,000	260,000	67,000	33,000
Value of Crops	£1,679,000	£439,000	£145,000	£155,000

(6) *Vegetables.*—Vegetables were grown at the Cape, under the auspices of the Dutch East India Company, from the very beginning of the occupation. In fact, it was largely for the purpose of growing vegetables for supply to the passing ships in order to counteract the ravages of scurvy that the Company had resolved to occupy the Cape. From an early date a large variety of horticultural produce was to be obtained from the gardens of the Company or the colonists. As in the case of wheat, the production of vegetables fluctuated according to changes in the size of the Company's civil and military establishment and in the number of ships calling at the Cape.

After the British occupation the local market expanded more rapidly, with the growth of population, industry and trade; and especially after the middle of the 19th century the rise of industrial and commercial cities and towns provided extensive markets for horticultural produce and accordingly stimulated the production of vegetables of all kinds. The variety of climatic conditions in the Union permits of a great variety of horticultural produce being grown with comparative ease. South Africa is more than capable of producing all the vegetables needed by its inhabitants and the ships calling at our ports, and is not confronted by any peculiar problems in connection with horticulture.

Production of Vegetables in Union (1921).

Description.	Potatoes.	Sweet Potatoes.	Onions.	Beans.	Peas.	Pumpkins.
Yield 100lb.	224,000	64,000	23,000	65,000	7,000	No. 15,236,000
Value on Farm ..	£818,000	£155,000	£102,000	£424,000	£44,000	£254,000

(7) *Viticulture.*—The cultivation of the vine has been undertaken at the Cape since the days of Van Riebeeck. Vines were introduced by the Dutch East India Company mainly from France

and the Rhine Provinces of Germany, and the arrival of the Huguenot refugees who hailed mostly from the wine districts of France gave a considerable impetus to the development of viticulture in the districts now known as Paarl and Stellenbosch, where they were settled and where viticulture still predominates over other agricultural pursuits. Until comparatively recent times vines were grown in the south-western districts of the Cape almost exclusively for the purpose of making wine and brandy. It is only since the end of the 19th century that any great attention has been paid to the production of special varieties of table grapes and raisins for the local market or for exportation.

Wine and Brandy.—During the last fifty years of the Company's rule there was, as in the case of wheat and vegetables, a constant tendency to the periodic overproduction of wine. By the middle of the 18th century the average production of wine at the Cape had been carried up to about 450,000 gallons per annum, and by 1793 to 900,000 gallons, which normally exceeded the local consumption, except on those occasions when a large number of French and English men-of-war called at the Cape for provisions. The Company did indeed permit the colonists to export wine to the East Indies, but in general the wine produced at the Cape was of such inferior quality that very little could be exported. It was only the limited quantity of sweet Constantia wine that was of good uniform quality and was exported by the Company to Europe where it became famous in the course of the 18th century.

From the beginning of the 19th century, however, viticulture advanced with rapid strides as the result of (1) the more rapid expansion of the local market, (2) the encouragement and assistance offered by the Government, and (3) the preferential treatment of Cape wine on importation into England.

In 1811 the Cape Governor issued proclamations drawing attention to the importance and great possibilities of the wine industry and offering premiums to those who planted the most vines and produced the best wine. The wine farmers were encouraged to adopt better methods of cultivation and improve the quality of the wine; and the office of Wine Taster was created, in consequence of charges of fraud or negligence against the wine farmers and merchants, to prevent the exportation of wine of inferior quality.

Moreover, in 1813 the Cape wines were admitted into England at one-third the duty on Portuguese and Spanish wines; *i.e.* the duty on Cape wines was reduced to £14 7s., as compared with the duty of £43 1s. on Portuguese and Spanish wines. Wine was the product of the Cape which was selected for preferential treatment in

England, as a result of which a large export trade in wine was carried on with that country. In 1814 already 1,171,000 gallons of wine, or more than one-half of the total production, were exported from the Cape to England, rising to 1,320,000 gallons in 1817 and 2,926,000 gallons in 1824. The wine industry flourished during this period and expanded considerably. From seven million in 1795 the number of vines in the Cape Colony rose to 18 million in 1811 and 30 million in 1824, and the total production of wine was increased from 912,000 gallons in 1795 to more than three million gallons in 1824.

In 1825, however, the duty on foreign wines imported into England was considerably reduced, and in 1831 the duty on Cape wines was raised, thereby reducing the preference enjoyed by the Cape wines in England and bringing about a substantial decline in the colony's export trade in wine. This decline was accelerated by the fact that, owing to the exceptional stimulus afforded to the production of wine at the Cape, more attention had been devoted to quantity than quality, and that the Wine Taster had become powerless to restrain the exportation of inferior wine on a large scale. The cheap and inferior Cape wines had been used in England, to a large extent, as a convenient means of adulterating wines imported from Spain, Portugal or France, but when the preference on Cape wines came to be reduced as stated above, this fraudulent practice was no longer profitable, and the importation of Cape wines began to decline rapidly.

Although substantially reduced, the preferential treatment of Cape wines on importation into England was continued until 1860 when it was entirely abolished by Gladstone. By 1854 the exports of wine from the Cape had declined to 364,000 gallons, but rose to 950,000 gallons in 1857 owing to the shipping demands caused by the Indian Mutiny. Then in 1860, when Gladstone abolished the existing preference in favour of Cape wines and, moreover, concluded a commercial treaty with France in which favourable duties were granted in respect of French wines, the Cape practically lost its last hold on the English market and has never succeeded in regaining it. The export trade in wine almost dwindled away, declining as low as 22,000 gallons in 1906. In recent years, however, there has been a promising revival.

For a time after the loss of the English market there was stagnation and acute distress in the wine industry of the Cape, but the rise of the mining industry after 1870 caused a rapid expansion of the local market and viticulture could resume its progress again. The price of wine rose from £3 per leaguer of 127 Imperial gallons in 1864 to £12 in 1874. At this stage the wine farmers attempted

to organise and formed an Association of Wine Farmers in 1875, but it was liquidated two years afterwards. In 1884 overproduction again came to the front and prices began to fall. The farmers made another effort to organise and keep up the price, which was of no avail, however, the price falling as low as £1 15s. a leaguer.

Shortly after this the wine industry was threatened by another disaster, *viz.* the insect known as the Phylloxera. In 1886 the Phylloxera was discovered in some vineyards of the Cape Peninsula and the districts of Stellenbosch, and although measures were taken at once by the Government to retard the progress of this plague, it spread over the whole of the Western Province in a number of years. Nurseries were established in all the wine districts of the Cape for the purpose of raising such varieties of American vines as had been proved to be phylloxera-resisting, and Cape vines were grafted on these American vines, the result being not only the elimination of Phylloxera but also an increase in the yield of grapes per vine.

In the nineties the rapid growth of the population and development of the country under the stimulus of the gold and diamond industries brought prosperity to the wine farmers, and viticulture underwent considerable improvement and expansion. The abnormal demand for wine during the Boer War raised prices and carried the process of expansion still further, resulting in over-supply and a substantial decline in the price of wine when the period of depression consequent upon the Boer War set in. In 1904 the average price of wine was only £2 10s. a leaguer. The problem of a surplus production of wine had to be faced again, and for a number of years the wine farmers were in distress. The acreage under vines was contracted, and the Cape Government promoted the establishment of co-operative wineries by furnishing financial assistance in the form of loans, with a view to increasing the production of wine of uniform quality. In due course the balance between demand and supply was restored again, and the price of wine improved, ranging from £3 to £8 a leaguer in 1914 and from £4 to £7 in 1916.

In 1917, however, the wine market was again depressed, the price of wine declining to £2 10s. and £3 a leaguer. This was regarded as unremunerative to the farmer, especially in view of the rise in the cost of production. Accordingly the wine farmers decided to unite and formed the Co-operative Wine Farmers' Association of South Africa, Ltd. The great bulk of the farmers joined this Association, the main object of which is to guarantee a minimum price for wine and ensure a stable wine market. In 1918 the minimum price was fixed at £4 15s. a leaguer, and in 1919

at £6, to the satisfaction of all concerned. But speculative forces were at work which tended to drive the price of wine up to new and higher levels from time to time, in the absence of a fixed maximum price, until it reached the stupendous figure of £30 a leaguer in 1920, irrespective of quality.

The outcome of this state of affairs was that some wine firms were forced into liquidation and others financially weakened, while the balance between demand and supply was upset once more. The rise in the price of wine had induced the planting of new vineyards and the production of wine rather than table grapes and raisins. The number of vines increased from 87,840,000 in 1918 to 102,108,000 in 1921, and the production of wine from 11,731,000 to 16,945,000 gallons. On the other hand, local consumption was considerably reduced in consequence of very high retail prices, and the export trade could not be appreciably increased. This brought about a large surplus, and the price of wine fell rapidly. Attempts were made to distil a part of the surplus wine into motor spirit, and the farmers were encouraged to devote more attention to raisins, but neither scheme offered any considerable relief. Consequently, it was decided to let the surplus run to waste and make arrangements for compensation to the producers concerned. This has been continued by the Association since that time as the surplus has become chronic.

The wine industry is in a critical state at present, as it has been on many occasions since the days of Van der Stel. In the 1924 Session of Parliament legislation was even introduced to assist in the matter, but from the nature of the case it can offer only temporary benefits. The production of wine has come to exceed the demand by a considerable margin, and until the equilibrium is effectively restored, there can be no permanent regeneration of the wine industry. The Co-operative Association will have to exercise more effective control over production as well as distribution and devote more attention to the improvement of the quality of the Cape wines, with a view also to building up an export trade in light as well as sweet wines.

Brandy.—The brandy industry of the Cape is as old as the wine industry. Brandy was one of the articles needed by the Company in its trade with the East Indies and was accordingly encouraged at the Cape, but it has never been exported to any great extent. It has always been produced almost entirely for local consumption. At first the quality of Cape brandy was deplorable and was severely condemned by all foreign visitors to the Cape, but in recent years a great improvement has been made. The excise duties on brandy have been graduated in such a manner that pure wine brandy is the

only brandy made on a large scale. The distillation of husks, the result of which is the so-called dop brandy, has been successfully suppressed, and stringent adulteration laws are in force, in consequence of which the purity of Cape brandy has already become an established fact.

The brandy industry is practically limited to the local market, where it is further limited by the competition of imported brandy and whisky. The Government can assist in the expansion of the brandy industry by raising the import duties on foreign brandy and whisky, especially as the excise duty on whisky in Great Britain is much higher than the import duty in the Union. This will also help the wine industry as brandy is obtained primarily from the distillation of wine.

Table of Statistics.—The following table shows the number of vines and the production of wine and brandy at the Cape since 1795 :

Number of Vines and Production of Wine and Brandy (1795-1923).

Year.			Number of Vines.	Wine. Gallons.	Brandy. Gallons.
1795	..	..	7,000,000	912,000	—
1821	..	..	25,200,000	2,432,000	228,000
1865	..	..	—	3,237,000	431,000
1891	..	..	78,574,000	6,012,000	1,423,000
1904	..	..	—	5,686,000	1,534,000
1911	..	..	—	7,500,000	1,420,000
1918	..	..	87,840,000	11,731,000	2,201,000
1921	..	..	102,108,000	16,945,000	2,804,000
1922	..	..	—	—	1,658,000
1923	..	..	—	13,188,000	—

Viticulture is confined almost entirely to the south-western districts of the Cape, where the climate is very favourable to the cultivation of the vine and where the productive power of vineyards exceeds that of any other viticultural country in the world. The main wine districts of the Cape are those of Paarl, Stellenbosch, Worcester, Malmesbury, Cape and Robertson. In 1921 the number of vines in the Transvaal was only 506,000, O.F.S. 333,000, and Natal 30,000.

Table Grapes.—It is only in recent years that special varieties of table grapes have been grown in South Africa on any considerable scale for the local market or for export. The export trade in grapes is making good progress and has great possibilities in the future. From £12,576 in 1916 the value of exported grapes rose to £46,109 in 1921 and £92,570 in 1923.

Raisins and Currants.—Although raisins were produced at the Cape from the earliest days, it is only since 1915 that the production of raisins has been conducted on a large scale. Prior to that date an appreciable quantity of raisins was annually imported from abroad, but such rapid progress has subsequently been made in the raisin industry that a considerable export has been developed. In 1914 6,984,000 lbs. of raisins of the value of £180,000 were exported from the Union, and in 1922 11,878,000 lbs. of a value of £250,000.

Both loose and stalk raisins are produced in the Union, and the raisin produced from the Sultana grape is quite equal to the imported article. Over large portions of the Cape Province, such as the districts of Worcester, Robertson, Montagu, Ladismith and Oudtshoorn, and the irrigable land along the Orange and Olifants Rivers, ideal conditions exist for the production of sun-dried Sultana, Hanepoot and other raisins, as well as currants.

The following table shows the exceptional progress in the production of raisins and currants in the Cape since 1904 :

Raisins and Currants Produced on Farms in the Cape (1904-22).

Year.						Raisins.	Currants.
						lb.	lb.
1904	..	..	..	..	..	1,830,000	8,000
1911	..	..	..	..	..	2,514,000	11,000
1918	..	..	..	..	..	6,361,000	114,000
1922	..	..	..	..	..	15,641,000	118,000

(8) *Fruit Growing.*—The fruit industry of South Africa can be traced back to the days of Van Riebeeck when various kinds of fruit trees were introduced at the Cape, including the orange, lemon, peach, apple, pear, cherry and chestnut. Some of these were obtained from Holland and Batavia, and others from the Island of St. Helena. It was demonstrated by Van Riebeeck and his immediate successors that the soil and climate of the Cape were well adapted to all kinds of fruit, but it was not until late in the 19th century that the fruit-growing industry began to make rapid progress. The general economic development of South Africa at that time had rendered conditions favourable to the expansion of fruit growing and made it possible to take advantage of the natural resources of the country.

In the nineties attention was directed for the first time to the importance of utilising orchard produce for other than local re-

quirements, and experiments were made in connection with the exportation of fruit to England on the ocean mail steamers. It was realised that the difference in seasons between the northern and southern hemispheres enabled the South African farmer to market his fruit in Europe when competition was not keen and good prices were obtainable, and the Union-Castle Steamship Company made an effort to encourage exporters by placing the vacant space in the refrigerating chambers at their disposal, but other difficulties involved in the export of fruit served to retard its growth.

The export trade in fruit advanced very slowly at first. In 1900 the shipments of fruit to other countries did not exceed 309 tons altogether, but the trade was gradually extended until by 1910 the shipments had reached a total of 2,705 tons. Then the fruit export began to develop more rapidly, rising to 6,460 tons of a value of £109,000 in 1914. In that year the Fruit Export Act was passed, the object of which was to maintain a high standard of quality in all fruit exported. Export fruit is carefully examined by Government inspectors prior to shipment, and each variety is required to conform to certain stipulated grades before being allowed shipping space. During the War the export of fruit was held in check by the lack of shipping accommodation, but in 1919 it was resumed with vigour and considerably extended in subsequent years. Improved and increased transportation and cold storage facilities were provided by the Union Castle Company; and the South African Fruit Growers' Exchange was formed in 1921, including fruit growers in all parts of the Union, with the object of placing the organisation of the industry and the fruit export trade on a stable basis and eliminating the shipment of waste and inferior fruit, likely to bring the South African product into disrepute.

The result was that the export of fresh fruit from the Union advanced in the following manner:

Year.						Value of Fruit Exported.
1910	..	..	..	..	..	£46,000
1914	..	..	..	..	..	109,000
1920	..	..	..	..	..	193,000
1921	..	..	..	..	..	433,000
1922	..	..	..	..	..	551,000

The principal varieties of fruit exported are oranges, pears, grapes, peaches, plums and pineapples; and, on a smaller scale, naartjes (or tangerines), grape fruit, apples, nectarines, apricots,

melons, bananas, etc. Such varieties as guavas, quinces, lemons, cherries, gooseberries, strawberries, figs, mangoes and grenadillas are also grown in various parts of the Union on a commercial scale, but not exported to any appreciable extent. The wide range of fruit produced in the Union is due to variations in altitude, rising gradually from a long line of coast to between 6,000 and 8,000 feet above sea level.

Citrus Fruits.—It was in 1906, at the time of the exhibition of citrus fruits in London organised by the Royal Horticultural Society of England, that it was demonstrated that South Africa could grow oranges and other fruits of the citrus family of as good quality as those of any other country in the world. Since that time citriculture and the export of citrus fruit have advanced with rapid strides. From 3,000 in 1907 the number of boxes of citrus fruits (mainly oranges) exported from South Africa to England rose to 69,000 in 1914, 230,000 in 1921 and 412,000 in 1923.

There is great scope for the expansion of the citrus industry. Various parts of the Union are admirably suited to the growth of all fruits of the citrus family, such as the southern and eastern coastal areas and the greater portion of the Transvaal north of Johannesburg. Such districts as Rustenburg and Marico have acquired an excellent reputation for oranges. Orange groves are now being laid out over large areas in the Transvaal, the Cape and Natal, and "citrus estates" are being developed by companies. The number of orange trees in the Union advanced from 986,000 in 1911 to 1,811,000 in 1921, and the process is now carried on more vigorously than ever. The English market has not been fully exploited as yet, and there are still the Continental markets and the United States to be taken up.

Deciduous Fruits.—Various parts of the Union are also well adapted to the growth of all kinds of deciduous fruits. They are grown practically over the whole of the Union, but, as an industry in itself, the growing of deciduous fruits is confined mainly to the south-western districts of the Cape, southern Transvaal and northern Free State.

There is likewise considerable scope for the development of the deciduous fruit industry, as the local market is expanding rapidly and the export trade has great possibilities. The export of deciduous fruit has made substantial progress in recent years. In 1922 pears were exported to England to the value of £102,000, peaches £36,000, plums £26,000, apples £9,000, nectarines £6,000, and apricots £3,000.

The expansion of the deciduous fruit industry is proceeding at a great pace. For example, during the decade from 1911 to 1921,

the number of apple trees in the Union advanced from 1,430,000 to 2,471,000, apricot trees from 1,025,000 to 1,454,000, plum and prune trees from 636,000 to 1,422,000, pear trees from 651,000 to 838,000, etc.

Tropical Fruits.—Certain varieties of tropical fruit, such as bananas and pineapples, are grown on a commercial scale in the eastern coastal areas of the Union. In 1921 4,618 morgen of land were reported to be under bananas, and of this 4,452 morgen were in Natal; and 2,793 morgen were under pineapples, of which 1,854 morgen were in the Eastern Province of the Cape, mainly in the districts of Bathurst and Alexandria, and 886 in Natal. They are grown mainly for local consumption, but the export of pineapples is increasing.

Dried Fruits.—The dried fruit industry, which dates back to the 18th century but was neglected until the end of the 19th century, has also made considerable progress in recent years. Prior to the Great War an appreciable quantity of dried fruit was annually imported, whereas now all local requirements are met from local sources, with the exception of special varieties, and moreover an export trade has been set on foot which promises to develop to great proportions. In 1921-22 1,820,000 lbs of dried fruit (excluding currants and raisins) were exported from the Union, the value being about £45,000.

The drying of such kinds of fruit as apricots, pears, apples, prunes, plums, peaches and nectarines is developing rapidly. The total production of dried fruit in the Union was increased from 9 million lbs. in 1917-18 to about 16 million lbs. in 1921-22, valued at £425,000. Yet the demand continues to be largely in excess of the supply.

In many parts of South Africa the conditions are well adapted to the production of sun-dried fruit, but the drying of fruit on a large scale is confined mainly to the south-western districts of the Cape, except in the case of apples, which are also dried in the eastern portion of the O.F.S.

(9) *Sugar.*—The sugar industry has become an important industry in Natal, where the sugar cane was first planted in 1849 on the Compensation Flats, 35 miles north of Durban. For a number of years after the experiment was made, the industry made very little headway. The earlier sugar mills were worked by animal power (oxen), but in 1856 the steam engine was introduced which rapidly superseded primitive methods. The planters were at first dependent upon the labour of the natives of the country, but as the natives were not inclined to undertake regular and continuous employment and thus could not become efficient work-

men, representations were made to the Natal Government to sanction the importation of indentured labourers from India. This was done in 1859, and in the following year the first coolies were introduced to work on the sugar plantations. By 1866 5,600 Indian coolies had been imported, resulting in considerable expansion of the sugar industry which was further promoted by the imposition, in 1867, of an import duty of 3s. 6d. per cwt. of sugar. By 1869 7,800 tons of sugar were produced in Natal.

The progress of the sugar industry, however, was retarded by various factors, such as the lack of adequate transport facilities, a limited market, disease in the "soft" varieties of cane, and competition from Mauritius. The opening of the diamond mines gave some impetus to the growing of the sugar cane, which was also stimulated by the arrival of a number of planters and artisans from the sugar estates and mills of Mauritius, the introduction of improved methods of cultivation and sugar extraction, and the erection of the Natal Central Sugar Company's factory at Mount Edgecombe in 1878. But the resultant expansion of the industry was checked, after 1883, by the substantial decline in the price of sugar all over the world. With few exceptions, however, the sugar planters of Natal managed to survive the fall in price, and from the nineties onwards, with the improvement of railway facilities and the widening of the local market consequent upon the development of gold mining, there was an almost continuous increase in both the acreage of the plantations and the production of sugar. It was only in the years 1904-6, when the industry suffered severely from the dumping of German beet sugar, that the acreage of cane reaped showed an appreciable decline.

The market conditions improved in 1907, and then the sugar industry began to make rapid progress. In 1905 the planting of the sugar cane had also been undertaken in Zululand, and in 1908 the first harvest was reaped there. Owing to the heavier rainfall and the greater fertility of the soil, the growing of the sugar cane was developed to greater proportions in Zululand than in Natal proper. By 1912 the Province of Natal was capable of providing for the bulk of the sugar requirements of the Union. In that year the production of sugar in Natal was 92,000 tons, as compared with the importation of 27,000 tons, primarily from Portuguese East Africa (Mozambique). By 1919 Natal produced more than sufficient for local consumption, and the export trade in sugar began to develop. From 13,000 tons in 1919 the export of sugar advanced to 43,000 tons in 1921 and 37,000 in 1922.

The 1924 crop has been estimated at about 195,000 tons, and as the local consumption at present amounts to about 145,000 tons

per annum, it leaves 50,000 tons available for export to England, where the Natal sugar interests have a secure market in view of the rebate of one-sixth of the import duty granted on sugar grown in the Empire since 1919.

The following table shows the quantity of sugar produced in Natal since 1869 :

Year.						Production.
						Tons.
1869	..	..	..	..	..	7,800
1895	..	..	..	..	..	23,000
1905	..	..	..	..	..	30,000
1911	..	..	..	..	..	82,000
1919	..	..	..	..	..	150,000
1924 (estimate)	..	..	..	..	..	195,000

There is still a good deal of scope for the expansion of the sugar industry. In Natal proper the best sugar land is under cultivation, but in Zululand there are still large tracts of land admirably suited to sugar culture and awaiting development.

By-Products.—Various by-products are obtained from the sugar industry, such as molasses, treacle, syrup, motor spirit, rectified and methylated spirits, and ether.

Sugar Mills.—At present there are 21 sugar mills in operation in Natal proper and four in Zululand. In the former the owners of the mills, with one or two exceptions, crush cane grown mainly by themselves, whereas in Zululand the mills are situated in the centre of a large area of sugar plantations from which the cane is obtained by agreement.

(10) *Tobacco.*—Tobacco was grown in South Africa even in the days of the Dutch East India Company, but on a very small scale. In 1822 it was reported that a small quantity of tobacco was grown in distant parts of the Cape Colony, *i.e.* in the vicinity of Oudtshoorn. By 1865 the production of tobacco in the Colony had reached the total of 1,633,000 lbs., of which 967,000 lbs. were contributed by Oudtshoorn, followed by Worcester, Riversdale, Swellendam, George, etc.; and by 1875 the production had been increased to 3,060,000 lbs. Then the tobacco industry of the Cape passed through a long period of stagnation, owing to the rise of the ostrich feather industry in Oudtshoorn and the surrounding districts and the development of tobacco culture in the Transvaal along the Magaliesberg Range, mainly in the district of Rustenburg, where the conditions of soil and climate are eminently suited to the cultivation of the tobacco plant.

In the Transvaal the tobacco industry soon advanced to the stage where the production exceeded the limited demand from the local market, with the result that from the early eighties the Transvaal sought a market in the Cape for its surplus tobacco. With the growth of Johannesburg and the gold industry, however, the local market expanded rapidly and stimulated the growing of tobacco. Prior to the Boer War the tobacco leaf was cured by very primitive methods in the Transvaal, but in spite of this the tobacco, known as Boer Tobacco, was smoked all over South Africa. After the War the improvement of tobacco culture was taken up by the newly-established Department of Agriculture, and experiment stations were established first at Tzaneen in the Zoutpansberg district, and later at Rustenburg, Barberton and Piet Retief.

In the earlier days the principal demand was for dark and medium tobacco, suitable for use as pipe tobacco and snuff. A large proportion of the tobacco crop was made up by the farmers into roll tobacco, which was again converted into pipe or snuff tobacco by the consumer. There is still a considerable quantity of roll tobacco produced, both by the farmers and by factories; but during the last twenty years the class of tobacco produced has in general undergone a great change. A number of factories for the manufacture of cut pipe tobacco and cigarettes have been established throughout the Union, and a growing demand for tobacco of light or medium colour and fine or medium texture has arisen.

As a result of the tremendous increase in the local consumption of cigarettes in recent years and the consequent demand for the light cigarette tobacco leaf, the cultivation of Turkish tobacco has been undertaken on a large scale at Stellenbosch, Wellington and Tulbagh. This movement was assisted to a great extent by the co-operative society of Turkish tobacco farmers, known as the Western District Warehouse Association of Paarl, which has succeeded in placing on the market a matured article that complies with the requirements of the manufacturers of Turkish cigarettes. The co-operative society now handles about 600,000 lbs. of Turkish tobacco per annum, more or less equal to the local demand, although some cigarette tobacco is still imported for blending purposes.

Virginian tobacco is grown on a commercial scale in various parts of the Union. In the districts along the Magaliesberg Range and the Kat River a light and medium tobacco is produced; in the districts of Potchefstroom, Piet Retief, Vredefort, Oudtshoorn and Piquetberg, a medium to heavy type; and in Natal a medium dark type, largely used in the manufacture of cigars and a cheap grade of pipe tobacco. Two co-operative societies, The Rustenburg Farmers' Co-operative Society and the Vaal River Tobacco

Farmers' Company, have been formed to deal with the marketing of Virginian tobacco.

The great bulk of tobacco grown in the Union is of the Virginian type. For example, in 1921, the record year, the total production of tobacco in the Union was 16,621,000 lbs., of which 16,000,000 lbs. were Virginian and the remaining 600,000 lbs. Turkish tobacco. The provincial distribution of tobacco in 1921 was as follows :

Cape.	Transvaal.	Natal.	O.F.S.	Native Reserves.	Union.
lb.	lb.	lb.	lb.	lb.	lb.
5,008,000	8,462,000	911,000	625,000	1,615,000	16,621,000

Conclusion.—The annual production of tobacco in the Union is on an average about 15,000,000 lbs., of which about 14,000,000 lbs. are required for local consumption and the remaining 1,000,000 exported. Between 1911 and 1921 the tobacco industry remained practically stationary, as shown in the following table :

Tobacco Grown in the Union (1911-23).

Year.	Production.
	lb.
1911	14,961,000
1918	14,931,000
1921	16,621,000
1922 (app.)	11,600,000
1923 (app.)	8,000,000

The great decline in the production of tobacco in 1922 and 1923, as compared with the preceding years, is to be attributed primarily to the imposition of very heavy excise duties on tobacco in 1921, which were somewhat reduced in 1922.

The tobacco industry of the Union has great potentialities, as there are still large areas of land suitable to tobacco culture and as the Union Trade Commissioner has recently succeeded in opening up the Continental markets for our low-grade tobacco ; but in order to realise these potentialities, wholly or partly, it is necessary that the recently-imposed excise duties be removed or, at least, considerably modified.

(11) *Cotton.*—Attempts were first made to establish cotton-growing in South Africa, in the eastern coastal districts of the

Cape and Natal, about the middle of the nineteenth century, but it is only since 1912 that the cotton industry has made any appreciable progress. The first attempts at cotton-growing were spasmodic only and did not attain any permanent results. As early as 1860 Natal exported cotton to the value of £17, rising to £3,479 in 1872; and in 1869 Hockey wrote that cotton was grown on a small scale in many parts of the Cape Colony and that the suitability of the Colony for the production of cotton was an established fact.

However, although there were instances of good crops produced and of favourable reports on samples sent overseas and although the Government and Chambers of Commerce gave a good deal of encouragement, the endeavour to establish cotton-growing as an industry failed hopelessly, mainly on account of the lack of transport facilities, knowledge of cotton culture, ginning establishments and a continuous supply of labour. The rise of several other farming industries of a more adaptable type also helped to deter the farmers from continuing with the cultivation of cotton.

Then, after the Boer War, the Transvaal Department of Agriculture undertook to encourage the development of cotton industry in the northern districts of that colony. The experiment station at Tzaneen, in the Zoutpansberg district, conducted a variety of experiments in connection with the cultivation of cotton, and when experiment stations were also established at Rustenburg, Barberton and Piet Retief, similar experiments were made there. These experiments showed that suitable varieties of American cotton could be grown in the Transvaal and produce crops of equal quality and superior yield per acre, as compared with those obtained from the same plants in the United States.

In 1910 the Union Department of Agriculture provided for a Tobacco and Cotton Division for the purpose of promoting the development of those industries. In view of the fact that the British Government and cotton manufacturers held out inducements for the cultivation of cotton within the British Empire, the Union Government decided to make a determined effort to stimulate the growing of cotton. Experiments were carried out in the areas considered likely to prove most suitable, in order to ascertain, by actual field trials, how cotton would thrive under the various climatic conditions and which varieties would yield the best results under the prevailing conditions. Moreover, the Government purchased a number of ginning machines and established ginning plants at Rustenburg and Durban, the two principal centres within reach of most of the trial fields. Improved railway facilities were also provided by the Transvaal as well as the Union Government, whereby a number of cotton areas were opened up for development.

As a result of these improvements, which began to take effect in 1912 and 1913, the cotton industry has advanced with rapid strides since that time, as shown in the following table :

Production of Cotton Lint in the Union (1910-23).

Year.	Production.	
	lb.	
1910-11	13,600	
1913-14	71,600	
1918-19	765,000	
1922-23 (app.)	2,400,000	

Cotton is grown on a commercial scale in Transvaal and Natal only, the principal producing areas being Rustenburg and Barberton in the Transvaal and Zululand and Weenen in Natal. The available lands for future development, where the soil and climatic conditions are highly favourable to cotton culture, comprise extensive areas in northern and eastern Transvaal, northern and eastern Natal and Zululand, and several river valleys in Natal and the Cape.

The cotton industry shows every promise of becoming one of the most important branches of South African agriculture. In the first place, there are large areas of land excellently adapted to cotton-growing. Secondly, the quality of South African cotton is highly satisfactory, usually commanding from 1d. to 3d. per lb. more than American middlings in England. And thirdly, England provides a ready market for as much cotton as the Union can produce. The world's demand for cotton is increasing rapidly and has outstripped production. The annual consumption of cotton now exceeds the average annual production, more particularly as the ravages of the boll-weevil insect have brought about a decline in the cotton output of the United States, whereas the consumption of cotton in that country has increased considerably. The stocks on hand are becoming rapidly depleted, and a serious shortage is in sight. Hence the activity of the Empire Cotton Growing Association in connection with the development of cotton culture in the Union.

The only limiting factors are the lack of adequate railway facilities in a large section of the available cotton area and the lack of an adequate and continuous supply of efficient labour. The first difficulty will soon be removed by the Railway Administration which has in view the construction of railway lines in Zululand and other

undeveloped cotton areas, and the other is being rapidly surmounted as good wages are attracting more and more natives, mainly women and children, to work in the cotton fields.

Other Forms of Agriculture.—There are a few other forms of agriculture in the Union of South Africa, such as the cultivation of peanuts in northern Transvaal and some parts of Natal, tea in Natal, coffee in Transvaal and Natal, chicory in the Cape and flax in all four Provinces, but these are conducted on a relatively small scale.

CHAPTER 6.

AGRICULTURAL AND PASTORAL INDUSTRY (*continued*).

PASTORAL PURSUITS :

(1) *Cattle Farming*.—The cattle industry of South Africa, which is the principal branch of the pastoral industry and the main products of which are beef, hides, milk, butter and cheese, in addition to the transport and other services rendered by oxen, had been set on foot by the Dutch East India Company and developed, to a certain extent, by the colonists under its régime. In 1793 there were reported to be 82,110 head of cattle in the possession of the colonists at the Cape. These consisted of three important types of cattle : (1) the native breed of cattle, *i.e.*, the cattle found in the possession of the Hottentots and Kaffirs and obtained from them in exchange for tobacco, copper wire and beads ; (2) the “ Afrikaner ” cattle, *i.e.*, the distinct type of cattle created by the colonists out of the native breed, by a process of selection primarily for draught purposes, owing to the dependence upon the ox-wagon as the sole means of transport ; and (3) the improved breed of cattle, *i.e.*, improved in milking qualities by the influence of imported breeds.

Native and Afrikaner Cattle.—The native and Afrikaner breeds of cattle possessed the quality of hardihood, but were of a low milking capacity. Moreover, they produced a fairly good grade of beef, but were of much slower growth than the European breeds of beef cattle. The native breed of cattle was the outcome of the peculiar physical or natural conditions of South Africa, such as periodic droughts, scanty vegetation, lack of perennial streams, mountain ranges with inferior pasturage and uncertain water supply, etc., and the consequent migratory habits of the aboriginal inhabitants, *viz.*, the Hottentots, Bushmen and Kaffirs. The outstanding characteristic of the native cattle was their hardy constitution and their ability to withstand the natural disabilities of the country. The existence of such cattle in the country was of great significance to the colonists and rendered possible the evolution of a breed of cattle (the Afrikaner), adapted not only to the natural conditions, but also the peculiar economic conditions of South Africa during more than 200 years of its occupation by Europeans.

Prior to the advent of the mining industry, railways and large urban centres, cattle were bred principally for draught purposes. It was only in the vicinity of Cape Town and Port Elizabeth that cattle were bred, to any considerable extent, for dairy purposes. In the first place, there was a very limited market for the surplus dairy produce of farms. There were only half-a-dozen towns and villages worthy of mention, and the population of these was not sufficient to offer much scope for dairy-farming. Moreover, the quality of the butter and cheese was of such low grade, in the absence of modern dairies or creameries, that there was very little opportunity of securing foreign markets. Secondly, owing to the lack of navigable waterways and railways, the transport of all the goods traffic had to be carried on by means of the ox-wagon. Oxen were required not only to transport farm produce to the villages, towns or ports, or imported goods from the coast to the interior, but also to draw the plough and perform other draught services on the farm.

Thus it came about that, until late in the 19th century, cattle were bred, in the first instance, for draught purposes, secondly, for slaughter purposes, and thirdly, for dairy purposes. The outcome of this state of affairs was the creation of a distinct type of cattle, known as the Afrikaner, which inherited the qualities of hardihood and endurance from the native breed, and, moreover, became unsurpassed for draught purposes. This breed was first evolved in the Cape Colony in the course of the 18th century and afterwards, at the time of the Great Trek, diffused all over the territories now comprised within the Union. It was the Afrikaner oxen which made it possible for the discontented colonists of the eastern districts of the Cape to move far into the interior with their families and transportable goods, and open up the territories now known as the Orange Free State, Natal and Transvaal.

In shape and general character the Afrikaner is different from any of the modern European breeds of cattle. In colour, however, it is similar to the Devon, the colour of pure-bred specimens of both breeds being dark red. Having been specially adapted for draught purposes, the Afrikaner has a strong, proportionately heavy forequarter, with a large development of the muscles of the upper part of the neck and withers for holding the yoke. It also has a close, compact body, light and drooping hindquarters, with legs and feet admirably suited for a long, free and firm stride.

The great majority of the cattle in the Union of South Africa still show the predominance of Afrikaner and native blood, but the pure-bred Afrikaner is diminishing in importance in view

of the great economic changes which have taken place in this country since 1870. In the first place, the construction of thousands of miles of railway in all parts of South Africa has had the effect of dispensing with the services of tens of thousands of draught oxen. Oxen are still used for draught purposes in connection with farming operations and the conveyance of farm produce to the towns and railway stations, in many parts of South Africa, but as a means of transportation over long distances the ox-wagon has been largely replaced by the railway. Secondly, the rapid growth of the urban population, resulting from the development of the mining industry and the expansion of commerce, has considerably increased the local demand for meat and dairy produce.

In view of the fact that the Afrikaner and native breeds of cattle have a low milking capacity and are of relatively slow growth, attempts were made, at an early stage already, to improve the local breeds by the introduction of European breeds; but it was only after the extension of railways and the growth of cities and towns that the movement gained a considerable impetus.

Dairy Cattle.—The foundation stock of the improved breed of cattle formed at the Cape in the 18th century was composed of Friesland cattle, which had been imported from Holland by the Dutch East India Company to improve the milking qualities of the native and Afrikaner cattle. It was only in the 19th century that importations of British breeds were made. Such dairy breeds as the Ayrshire, the Jersey or Alderney, and the Kerry were imported from Great Britain and crossed with the local breeds. In this way the so-called Cape cows, *i.e.*, cows bred in the Western Province, came to be a composite breed of the Afrikaner, the Friesland, the Ayrshire, the Jersey and the Kerry. The Afrikaner characteristics have been practically eliminated, but the characteristics of each of the other breeds can be observed in the Cape cow, the one or the other preponderating, depending upon the impressiveness of the last sire or the repetition of the same cross.

Thus the Cape cattle were greatly improved in milking qualities by means of crosses with various European breeds of a good milking strain, and these improved Cape dairy cattle were again spread all over South Africa and used as a cross with the Afrikaner and native cattle in the interior, resulting in the formation of what might be considered an improved Afrikaner breed. This was especially of great significance in the semi-arid regions, since this improved Afrikaner breed acquired all the hardy characteristics of the pure-bred Afrikaner and became thoroughly ac-

climatised to the dry and scanty vegetation of those extensive regions.

In the Eastern Province of the Cape the Shorthorn was, from the beginning, the most popular breed of imported cattle, especially with the English farmers. Where the conditions are favourable and the pasturage is abundant and reliable, this breed thrives well and grows to maturity quickly, giving the best average returns to the farmer who takes both beef and milk into consideration. For this reason the Shorthorn, which makes a good cross with the mixed breeds, is also found in large numbers in certain parts of Bechuanaland and on the High Veld.

Although the bulk of the dairy herds in the Union are what may be called Utility Dairy Cattle in which Friesland and Shorthorn blood predominates, there are also considerable numbers of pure-bred herds of Frieslands, Aryshires, Jerseys, Dairy Shorthorns, South Devons and Red Polls. During the last 30 years a great improvement has been brought about both as regards the quantity and quality of dairy cattle. Large numbers of pure-bred cattle have been imported from time to time. Their progeny has become widely diffused and improved the ordinary cattle of the country. Dairy farmers have also come to appreciate the value of keeping milk records as a means of improving herds by selected breeding from the largest producers. Dairying is no longer looked upon merely as a side-line by farmers, but many are now specialising in dairy farming and improving their cattle with a view solely to increasing their output of milk and cream, while the arable portions of their farms are devoted entirely to the production of foodstuffs for the feeding of their cows, such as mealies, lucerne, oats, teff-grass, millet, mangolds and cow-peas.

As a result of this, the dairy industry of South Africa has made exceedingly rapid progress in recent years and has come to assume a position of considerable importance.¹ Prior to 1916 an average of 3 or 4 million pounds of butter and 4 or 5 million pounds of cheese were imported every year, whereas since that date imports of butter and cheese have been restricted to small quantities only of certain varieties or at times of temporary scarcity, and an

¹ The State has done a great deal to promote the development of dairying since the late eighties. The Cape Government was the first to provide for instruction in dairying and to demonstrate the modern methods of dairying by means of a travelling dairy. The Cape was soon followed by Natal and by the Transvaal and O.F.S. under the Crown Colony Administration after the Boer War. Loans were also granted to encourage the establishment of creameries, of which there were 71 at the end of 1921. Moreover, provision has been made for a Division of Dairying in the Union Department of Agriculture, and Dairy Inspectors have been appointed to travel among the farmers and give advice and instruction in approved methods of dairying.

appreciable export trade has been developed, viz., 2,500,000 lbs. of butter in 1916-17 and 1917-18 and over 1,500,000 lbs. in 1922, and 1,000,000 lbs. of cheese in 1918-19 and 1919-20 and 500,000 lbs. in 1920-21. The production of butter advanced from 11,350,000 lbs. in 1910-11 to 21,693,000 in 1918-19 and 21,873,000 in 1921-22, and that of cheese from 545,000 lbs. to 5,519,000 and 5,340,000 lbs. respectively. In April, 1923, there were 74 creameries and 116 cheese factories.

According to the Agricultural Census returns for 1920-21, the production of milk in the Union was estimated to be 399,000,000 gallons, of which 213,000,000 gallons were computed as having been available for consumption at a market value of £19,500,000. The market value of cream and butter-fat supplied to creameries was reported to be £939,000, of milk supplied to cheese factories £185,000, and of butter and cheese made on the farm £825,000.

There is considerable scope for the expansion of the dairy industry in South Africa. Experience has shown that large portions of the country are well adapted to dairy farming; irrigation facilities are being extended and render specialised dairy farming on a large scale possible; the quality of our dairy cattle is being rapidly improved and, in fact, needs to be improved as the average production of butter-fat per cow per annum in South Africa has been computed to be 50 lbs., as compared with 210 lbs. in Denmark and 170 lbs. in New Zealand on account of the greater attention given to scientific breeding and feeding; and, with a continued improvement in the quality of our dairy produce in consequence of modernised co-operative creameries and cheese factories, there are bright prospects of a wider market in England and on the Continent of Europe.

Beef Cattle.—Since the Native and Afrikaner cattle do not grow to maturity quickly and, moreover, cannot add weight quickly when fed for the market, importations of British breeds of beef cattle have been made, from time to time, to improve the beef-producing qualities of the local breeds. Such beef breeds as the Hereford, the Aberdeen-Angus, the Sussex, the Shorthorn and the Devon have been imported and crossed with the local breeds. All of these imported breeds make excellent crosses with the native and Afrikaner cattle. The hardy constitution of the Hereford renders it suitable for large portions of the Union, and the cross produces first-rate beef cattle. The Sussex and the Devon also possess the quality of hardihood, and the cross produces good beef and draught cattle, the Devon being in addition suitable for dairy purposes. The Shorthorn and the Aberdeen-Angus also produce first-class beef cattle, capable of responding favourably to

feeding for the market, but they are not as hardy as the other breeds and thrive well only where the vegetation is good.

The movement to improve the beef-producing quality of the local breed of cattle was set on foot in the course of the 19th century, and derived a great deal of stimulus from the rise of the mining industry with the consequent increase in the demand for beef and the slackening of the demand for draught cattle; but it is only since the Boer War that notable progress has been made in the breeding of cattle for slaughter purposes. Prior to the Boer War the prevalence of cattle diseases in the interior had proved to be a serious obstacle to the investment of money in cattle-breeding operations. In 1896 the outbreak of rinderpest on a large scale had considerably diminished the herds of cattle which had by that time become established in the Transvaal, Natal, the Orange Free State and the eastern districts of the Cape, and during the Boer War the herds had been further depleted in number to such an extent that for years large quantities of frozen meat had to be imported to satisfy the local requirements.

Accordingly, the encouragement of the breeding of beef cattle came to be considered a matter of the greatest importance and was undertaken in earnest by the State. The Crown Colony Governments of the Transvaal and the Orange River Colony set to work to replenish the stock and imported large numbers of cattle not only from the Cape and Natal, but also from overseas; and the Cape and Natal Governments likewise imported pure-bred cattle. Measures were also taken for the prevention and control of stock diseases to reduce the risks of cattle farming. A Veterinary Bacteriological Division was instituted in the Transvaal, and provision was made for veterinary research, which enabled the Government to combat the cattle diseases known as rinderpest and East Coast fever. The Cape and Natal Governments had already provided for veterinary research and instituted laboratories at Grahamstown in 1891 and Pietermaritzburg in 1897. Moreover, the Union Department of Agriculture includes a Veterinary Division, which deals with the prevention of the introduction of contagious diseases of live stock into the Union, with the eradication of such diseases as are present, and with the protection of live stock against enzoötic diseases by inoculation and other means, as well as a Division of Veterinary Education and Research, which deals with the investigation of diseases of live stock with a view to discovering methods of suppressing them or of protecting animals against their ravages, and prepares and supplies vaccines, sera and diagnostic agents.

As a result of the great progress in the prevention and control of stock diseases and the encouragement of cattle-breeding by the

State, the number of cattle in South Africa has advanced by leaps and bounds since 1904, as illustrated in the following table :²

Number of Cattle in Union of South Africa.

Year.	Cape.	Transvaal.	O.F.S.	Natal.	Union.
1855	450,000	—	—	—	—
1875	1,112,000	—	—	—	—
1891	2,211,000	—	895,000	714,000	—
1904	1,954,000	516,000	363,000	667,000	3,500,000
1911	2,715,000	1,339,000	1,286,000	456,000	5,796,000
1921	2,810,000	2,561,000	1,732,000	1,451,000	8,554,000
1922	2,976,000	2,762,000	1,896,000	1,566,000	9,200,000

Thus, in 1922, there were reported to be 9,200,000 head of cattle in the Union. The great bulk of these are of mixed breed, with a preponderance of Afrikaner and native blood, though large numbers show the influence of several of the improved European breeds already mentioned. During the last decade in particular, a marked improvement has been brought about in the herds in many parts of the country by importations of sires and by the establishment of pure-bred herds, from which bulls in considerable numbers are now bred and used for the betterment of ordinary herds. The formation of the South African Stud Book Association in 1905, and of different Breed Societies affiliated thereto, has promoted the breeding of pure-bred stock and protected and fostered the interests of breeders.

During recent years the prospects of an export trade have stimulated breeders to improve the type of cattle bred for beef purposes, and the fattening of cattle is receiving increasing attention. Whereas in the three years prior to the Great War an average of 8,000,000 lbs. of beef were imported into the Union, in the seven years from 1915 to 1921 (both inclusive) an average of over 20,000,000 lbs. were exported, mainly due to the abnormal stimulus afforded by the war. However, since 1921 the export trade in beef has dwindled considerably, and the rapid increase of the herds has led to an abnormal surplus of slaughter cattle³ in the country,

² The table also shows the loss of cattle through the ravages of the rinderpest of 1896 and the Boer War of 1899-1902.

³ Whereas prior to 1910 the ravages of cattle diseases had largely prevented the breeding of cattle from being undertaken on a commercial basis in the interior, and had periodically rendered South Africa a beef-importing country, the improved control of such diseases has promoted cattle-breeding to such an extent that production has come to exceed local consumption; and consequently, in order to prevent stagnation, it is essential that the export trade in beef be encouraged and established on a secure foundation.

resulting in a sharp decline in the price of such cattle and bringing about an acute depression in the cattle industry. In 1923 it was even resolved by Parliament to grant a subsidy for the export of beef with a view to relieving the depression, but it has not been attended with any great success.

The difficulties in which the cattle industry is involved at present are two-fold :—

(1) The greater proportion of slaughter cattle in the Union are of a comparatively low grade. Some improvement has indeed been made in recent years by the importation and breeding of pure-bred stock for beef purposes, either by the Government or private individuals, but in general more attention has been paid to quantity than quality. The preponderance of Afrikaner and native blood in our slaughter cattle, in conjunction with the fact that periodic droughts and scanty natural vegetation considerably lower the quality of beef, is not conducive to the development of an export trade in beef in competition with the Argentine and other countries. More attention is to be given to scientific breeding and feeding. Pure-bred bulls of the leading British beef breeds must be rendered more accessible to the farming community with a view to improving their stock, and the growing of fodder crops for winter feed must be undertaken more extensively with a view to tiding the cattle over the periods of drought and, moreover, fattening them for the late winter or early summer market. In the meantime, a great deal can be done to relieve the market of the surplus scrub stock by the establishment of meat factories for the preparation of preserved meat and beef extract. Steps have already been taken by the Imperial Cold Storage Company to erect such a meat factory at Messina, in the Transvaal.

(2) The cattle markets of the Union have, in recent years, been continually glutted by the influx of thousands of low-grade cattle from the neighbouring territories, such as Rhodesia, South-West Africa Protectorate, British Bechuanaland, etc. The influx of Rhodesian cattle especially has been a source of constant anxiety. Steps have been taken, as from March 1st, 1924, to prohibit the importation of cattle from Rhodesia of less than 800 lbs. in weight, but as the great majority of slaughter oxen exceed that weight, the embargo does not have any material effect.

With greater attention to scientific breeding and to feeding for the market and with the improvement and extension of cold-storage accommodation for meat on ships sailing direct

between South Africa and various countries of Europe, there is every likelihood of a considerable export trade in beef being developed. Besides the English market, trial shipments of live cattle and cold-storage beef have also been made to the Continent of Europe with great success.

(2) *Sheep Farming*.—The sheep industry, the main products of which are wool, mutton, skins and fat, ranks as a close second to the cattle industry. For many years wool-growing was the leading branch of the pastoral industry of South Africa, but in recent years the cattle industry (inclusive of dairying) has gained on the sheep industry and has succeeded in surpassing the latter in respect of the economic value of products and services.

Wool is the principal product of the sheep industry and one of the most important items of export, but it was with great difficulty that wool-growing came to be established as an industry in South Africa. Various attempts had been made by the Dutch East India Company, since the very beginning of its occupation of the Cape, to introduce Spanish woolled sheep into the colony and to induce the colonists to undertake the breeding of such sheep for the production of wool, but by the end of the 18th century very little progress had been made as the farmers preferred the native hairy sheep to the delicate Merino. Under the circumstances prevailing at the Cape in the 17th and 18th centuries, the farmers did not take to the woolled sheep on the ground that the meat and fat of the hardy fat-tailed native or Afrikander sheep could not be compensated for by the wool of the Merino. Moreover, the lack of transport facilities and the need of greater care and attention in the case of the Merino sheep helped further to obstruct the development of wool-growing.

However, the Van Reenen brothers, who had acquired a number of Spanish Merinos in 1790 from Colonel Gordon, an officer in the service of the Company, and imported others in 1793, had commenced the process, and also used the Merino rams to improve the ordinary Afrikander sheep. In 1803 the Dutch Governor, General Jansens, urged the farmers to adopt the new method of crossing woolled sheep with the native hairy sheep, and during the years 1808-11 the English Governor, Lord Caledon, took various measures to promote and force wool-growing, but they did not succeed in removing the general prejudice against the Merino sheep.

In 1812 two other progressive farmers, Reitz and Van Breda, took up the matter and imported some fine-woolled Electoral sheep from Saxony. These were located on farms in the Bredasdorp district, and the breed was kept pure, although some of the

rams were used for cross-breeding with the Afrikander sheep. Their example, however, was not emulated by their conservative fellow-farmers for some years.

Later on, Lord Charles Somerset also imported Merinos and kept them at the Government farm at Groote Post, in the Malmesbury district, and at the Boschberg, now the town of Somerset East. Pure-bred flocks were established and Merinos were offered to the farmers at low prices. The movement gained a good deal of headway after a large number of well-bred fine-woolled sheep had been established in the Albany district by the English settlers. They had brought along with them some sheep of the Southdown and other English breeds, but when it was found that such sheep did not thrive well in the Colony, the settlers began to purchase Merinos which had been proved by the Government to be well adapted to the conditions.

In 1828 a number of rams and ewes were imported from Saxony, and by 1835 the success of the wool industry was assured. It had become an established industry in the Eastern Province and was attracting an increasing number of farmers in the Western Province. In 1835 over 200,000 lbs. of wool were exported, as compared with 20,000 lbs. in 1822.

From now on the wool-growing industry made extraordinary progress, especially in the eastern and north-eastern districts. Within a few years Merino sheep found their way into the districts of Cradock, Colesberg, Beaufort West, Victoria West, Calvinia and Murraysburg. These districts became in time centres for distribution elsewhere; and by crossing with the native sheep, and again and again recrossing with its progeny, such good results were obtained that woolled sheep were soon distributed all over the Cape Colony and even penetrated deep into the interior beyond the Orange River. In 1852, for example, the Orange River Sovereignty exported 23,000 bales of wool, valued at £230,000. In Natal and the Transvaal, however, the wool industry made relatively slow progress. Even in 1862 only 907,000 lbs. of wool of a value of £38,432 were exported through Durban (Port Natal), whereas 25,038,000 lbs. of wool of a value of £1,276,542 were exported through the Cape ports.

From time to time importations of various breeds of Merino sheep were made. In the sixties and seventies a number of pure-bred woolled sheep of the Rambouillet breed were imported from France in view of the fact that broadcloth, manufactured out of fine wool such as that of the Saxon Electoral breed of Merino previously imported into the Cape, had largely given way to tweeds for everyday wear, and accordingly quantity had become

more desirable than extreme fineness, and that the demand for mutton was gradually increasing and necessitating a breed of sheep capable of yielding, besides wool, a fairly good supply of mutton. Then, during the eighties, when the worsted-manufacturing industry forged ahead and created a demand for wool that was suitable for combing, sheep of the Merino breeds that had been established in Australia, Tasmania and Vermont, U.S.A., were imported in large numbers into South Africa. In 1891 the census returns showed a total of 945 imported rams and 1,575 imported ewes in the Cape Colony.

Woolled Sheep.—The following table shows the remarkable progress in the breeding of woolled sheep in South Africa since 1822 :

Number of Woolled Sheep in South Africa (1822-1922).

Year.	Cape.	O.F.S.	Transvaal.	Natal.	Union.
1822 ..	8,000	—	—	—	8,000
1865 ..	8,370,000	—	—	—	—
1880 ..	—	5,056,000	—	—	—
1891 ..	13,631,000	5,916,000	—	959,000*	21,000,000†
1904 ..	8,465,000	2,437,000	414,000	505,000	11,821,000
1912 ..	13,239,000	9,410,000	3,099,000	1,583,000	27,331,000
1922 ..	13,785,000	8,215,000	2,916,000	1,176,000	26,092,000

* Including non-woolled sheep.

† Approximately.

Whereas in 1822 there were only about 20 Merino flocks in South Africa, consisting of about 8,000 sheep, by 1891 there were approximately 21 million woolled sheep in the four territories now comprising the Union. The great bulk of these were located in the Cape Colony and the Orange Free State. Then the Boer War came which caused a tremendous set-back to the wool industry and reduced the number of woolled sheep to 11,821,000 in 1904. Since that time, however, wool-growing has been renewed with vigour and has made exceedingly rapid progress in the Transvaal and the Orange Free State, where the Crown Colony Governments facilitated reconstruction and gave a great deal of impetus to the industry. By 1911 the number of woolled sheep exceeded 21 million once more, and by 1912 it reached 27 million.

Since 1912 the number has remained more or less stationary as the result of severe losses from drought in 1913-14, 1917-18 and 1921-22. Under the prevailing conditions and methods of sheep-farming, the Union has arrived at the stage where the limit of the carrying capacity of sheep farms in general has been reached and,

consequently, the effects of periodic droughts are felt more severely. It is not so much the case that the droughts are more frequent or more intense than formerly as it is that the consequences of drought are aggravated by the considerable soil erosion and destruction of pasturage which have taken place for years, as the result of the excessive driving of the large flocks of sheep from one part of the farm to the other or the careless cutting of innumerable paths by wagons and carts.

In order to increase the carrying capacity of existing sheep farms, the methods of farming must be improved. In the first place, recourse must be taken to inside fencing with a view to dividing the farm into as many paddocks as capital, and the provision of boreholes to supply water in each paddock, permits; for sheep which wander at large and are daily driven backwards and forwards across the farm for watering and penning at night, destroy almost as much pasturage by tramping as they do by eating. It also prevents the formation of those paths and ruts which are responsible for a great deal of erosion, and enables the pasturage in some paddocks to recover and improve while the others are being used. Secondly, more attention must be given to the growing of such crops as lucerne, oat-hay, maize, sorghum or mangolds, with the aid of water from boreholes or dams if necessary, as a means of feeding and sustaining sheep during periods of drought. In these ways it will be possible to maintain a larger flock of sheep on the same farm or the same flock on a smaller farm.

Moreover, besides increasing the carrying capacity of existing sheep farms, wool-growing can be extended by the opening up of new pastoral areas (Crown Land) which are well-adapted to sheep-farming provided the necessary capital is available. It has proved to be one of the most profitable farming enterprises in South Africa and is at present, in this time of severe depression, the mainstay of the farming community in the interior. Its prospects are very bright, as the world's demand for wool is increasing more rapidly than the supply. In fact, in many countries the production of wool even shows a tendency to decrease.

More attention is also to be given to scientific breeding and systematic handling of the clips, with a view to increasing the yield of wool per sheep and improving the quality of the wool. Great progress has already been made in connection with the increase in the yield of wool, from 2 lbs. per sheep in 1865 to 6 lbs. in 1915, but this yield is still small as compared with other wool-producing countries. The quality of the wool has also been much improved during the last two decades, largely due to the active and progressive policy pursued by the Government in educating wool-

growers in regard to the improvement of their flocks and the handling of their clips. Vigorous steps have also been taken to secure the eradication of scab and other sheep diseases. The Division of Sheep and Wool, in the Union Department of Agriculture, employs a large number of sheep inspectors to keep a watchful eye on the outbreak of scab and confine it within narrow limits. It also has a staff of sheep and wool experts who are rapidly bringing about an improvement in the Union's flocks. Whereas formerly Cape wool was always regarded by foreign buyers with a great deal of suspicion, this stigma has to a large extent been removed, and buyers are now able to operate with greater confidence, although there is still much room for improvement.

Quantity and Value of Wool.—The following table shows the quantity and value of wool exported from South Africa since 1822 :

Quantity and Value of Wool Exported from South Africa (1822-1922).

Year.					Quantity.	Value.
					lbs.	£
1822	..	..	..	..	20,000	—
1842	....	..	..	..	1,372,000	72,500
1862	..	..	..	..	25,945,000	1,315,000
1882	..	..	..	..	55,745,000	2,544,000
1902	..	..	..	..	89,170,000	2,177,000
1913	..	..	..	..	176,972,000	5,719,000
1918-22 (av.)	..	..	..	..	172,098,000	12,567,000*

* The high average value of the wool export for the period 1918-22 is to be attributed to the high prices of the abnormal years 1918-20. Prior to the Great War the average price of wool was 7d. per lb., whereas in 1918 it was 1s. 5d., rising to 2s. 5d. in 1920 and then declining to 8d. in 1921 in view of the great slump in the wool market. Toward the end of 1922, however, the price of wool recovered and established a new level, much higher than the pre-war level; and there is every likelihood of the price maintaining its high level for some time in view of the shortage of wool and cotton—the demand exceeding the supply.

Mutton Sheep.—Generally speaking, on account of the pastoral conditions, the greater part of South Africa is much better suited to the ranging Merino than to the majority of English breeds or cross-breeds, which thrive well only under rich agricultural conditions; and consequently the great bulk of sheep within the Union are Merinos of various types. The Merino sheep produce a good quality of mutton, but grow to maturity very slowly and are reared primarily for the production of wool. Hence it has frequently been necessary to import quantities of mutton from overseas for consumption within the Union.

In those parts of the Union, which have a heavy rainfall and suitable agricultural conditions, high-class mutton sheep can be raised successfully; and economic conditions are tending to promote the breeding of sheep which yield a good supply of mutton as well as wool. There is an increasing local demand for mutton, and there are good prospects of an export trade in mutton being developed, on the improvement of cold-storage accommodation and the quality of the mutton. A commencement has already been made on a small scale.

The Afrikaner sheep, when crossed with certain of the English breeds, will give a good foundation on which to build a profitable mutton industry. These indigenous sheep are hardy, early maturing, easily fattened, very prolific, and when crossed with the Suffolk Down, the first and second crosses yield mutton and lamb of excellent quality.

Non-Woolled Sheep.—Although the Merino has claimed considerable attention from South African sheep farmers, the hairy Afrikaner sheep have persisted and are still found in large numbers in the Union, mainly on account of their supply of mutton and fat; but, while there was a rapid advance in their numbers between 1904 and 1911, there has been a considerable decrease since 1911. First it was the severe drought of 1913-14 which eliminated a large number of them, and then the rise in the price of wool since 1916, along with the drought of 1917-18, carried out the process a good deal further, as illustrated in the following table:

Number of Non-Woolled Sheep in South Africa (1865-1922).

Year.	Cape.	O.F.S.	Transvaal.	Natal.	Union.
1865 ..	1,466,000	—	—	—	—
1880 ..	—	140,000	—	—	—
1891 ..	3,075,000	703,000	—	—	—
1904 ..	3,353,000	563,000	442,000	164,000	4,502,000
1911 ..	6,083,000	1,232,000	1,085,000	414,000	8,814,000
1921 ..	3,106,000	233,000	408,000	221,000	3,968,000
1922 ..	4,136,000	559,000	647,000	263,000	5,605,000

(3) *Goat Breeding.*

(a) *Common Goats.*—The common goat was found in possession of the aborigines of the Cape at the time of its occupation by Europeans. The colonists gradually acquired a number of goats from the Hottentots and undertook goat-breeding as a side-line to cattle and sheep-farming. Until the beginning of the 19th century, however, the

breeding of goats was not undertaken on any considerable scale. Then it began to make a good deal of headway, and the number of common goats increased rapidly until checked somewhat by the introduction of Merino sheep in the twenties and thirties, and later on by the expansion of the Angora goat industry in the fifties and sixties. But, like the Afrikander sheep, the common goat persisted and held its own, gradually increasing in number until the droughts of recent years and the high prices of wool brought about a decrease in the country's stock of goats, as appears from the following table :—

Number of Common Goats in South Africa (1855-1922).

Year.	Cape.	Natal.	Transvaal.	O.F.S.	Union.
1855 ..	1,250,000	—	—	—	—
1875 ..	2,187,000	—	—	—	—
1880 ..	—	—	—	247,000	—
1891 ..	3,444,000	302,000	—	231,000	—
1904 ..	4,387,000	871,000	788,000	332,000	6,378,000
1911 ..	4,613,000	862,000	1,510,000	503,000	7,488,000
1922 ..	4,088,000	988,000	880,000	108,000	6,064,000

These goats are bred principally on the native reserves and locations, where one-half of the common goats in the Union are located at present, and in the dry Karroo districts to the north and north-west of the Cape. They are also found in some of the coast districts and in the bush country where sheep do not thrive. In many of the agricultural districts they are raised as a source of cheap food for the coloured labourers, and in all parts of the Union they form a considerable portion of the stock of poor farmers. They are also a necessary adjunct to all sheep farms, where they perform the function of leading the flocks of sheep to the pastures, or into enclosures for shearing, dipping, dosing or dressing purposes, or through rivers.

The original Cape goat was very inferior to the common goat now found in South Africa. The improvement in size and appearance has been effected by repeated importations of superior goats of the common varieties from Europe. The improved common goat of South Africa has a very hardy constitution, grows to a considerable size, and multiplies very rapidly. During a long drought in some of the Karroo districts, it is frequently the only kind of stock in a condition fit for the butcher. There is a fairly good demand for their meat, which is somewhat stronger and coarser than that of sheep, and large numbers of goat skins are exported annually.

(b) *Angora Goats*.—As in the case of woolled sheep, it was with great difficulty that the breeding of the fine-haired varieties of the goat came to be firmly established in South Africa. In 1725 the Dutch East India Company made an attempt to introduce a number of the Cashmere variety of goats from Persia into the Cape Colony, but out of 24 rams and ewes only 7 rams survived the ordeal. These pure-bred rams were crossed with the common Cape ewes, and the female progeny of these cross-mated again with the imported rams; but as no other pure-bred rams were imported, the cross-breed began to deteriorate in the absence of careful selection and the hair became of little value.

No further attempt to introduce a fine-haired breed of goats into the Cape Colony appears to have been made until 1835, when a number of Cashmere goats were imported, which, however, died before any progeny was obtained from them. It was in 1838, with the importation of several pure-bred goats of the Angora type, that the mohair industry of South Africa, which was destined to outrival Turkey and become the source of the bulk of the world's, supply of mohair, really commenced, although many years had to elapse before mohair could be produced on any considerable scale.

In that year Colonel Henderson obtained 12 pure-bred Angora rams and one ewe, which he brought to the Cape by a very circuitous route and at great expense. Six of the rams died on the voyage and it was discovered that the other six had been rendered impotent by some operation before being exported from Angora in Asia Minor. Fortunately, however, the only ewe gave birth on the voyage to a ram kid which proved to be capable of propagating his species. A number of white common goat ewes, in the Caledon District, were selected and crossed with this young ram, and the female progeny from this cross were again mated with the ram, the process being repeated as long as it lived. Cross-bred rams were then disposed of to various farmers in the Caledon, Swellendam, Beaufort West and neighbouring districts, and used for crossing with selected common goat-ewes, so that by 1856 a large number of cross-bred Angora flocks were spread over a wide area within the Cape Colony.

In view of the great improvement which was effected by this system of cross-breeding, vigorous attempts were now made, from 1856 onwards, to introduce pure-bred Angora goats. In 1856 Messrs. Mosenthal Bros, imported thirty rams and ewes from Asia Minor, all of them being sold at Graaff-Reinet and becoming the foundation stock of the pure-bred Angora goats of the Midland and Eastern districts of the Cape. Subsequent shipments of pure-bred Angora goats arrived in 1857, 1867, 1879 and 1880,

and the industry made very rapid progress since the way had already been prepared by the wide-spread diffusion of Angora blood mentioned above. These pure-bred goats were thus crossed with goats already having a considerable infusion of Angora blood, thereby facilitating the process of improving the quality of the hair.

The following table shows the quantity and value of mohair exported from South Africa since 1857 :—

Quantity and Value of Mohair exported from South Africa (1857-1922)

Year.					Quantity.	Value.
					lbs.	£
1857	..	..	..	..	870	10
1877	..	..	..	..	1,434,000	116,000
1897	..	..	..	..	12,584,000	677,000
1907	..	..	..	..	18,700,000	966,000
1912	..	..	..	..	23,480,000	967,000
1916	..	..	..	..	17,374,000	1,115,000
1922	..	..	..	..	25,793,000	1,152,000

Prior to 1857, when the export of mohair from South Africa commenced, Turkey had an almost complete monopoly of the mohair trade, but by 1887 a larger quantity of mohair was being exported to England from South Africa than from Turkey, and since 1907 our annual export of mohair has been about double that of Turkey. The sale of mohair is confined almost entirely to the Bradford market, where it is spun into yarn and distributed.

The following table shows the number of Angora goats in South Africa :—

Number of Angora Goats in South Africa (1875-1922).

Year.	Cape.	O.F.S.	Transvaal.	Natal.	Union.
1875	..	978,000	—	—	—
1880	..	—	427,000	—	—
1891	..	3,184,000	628,000	67,000	3,900,000*
1904	..	2,776,000	402,000	86,000	129,000
1911	..	3,340,000	546,000	262,000	127,000
1922	..	2,054,000	127,000	55,000	36,000

* Approximately.

The great majority of these Angora goats are located in the mid-land districts of the Cape and are of the cross-breed type, having been derived from the common goat-ewes of the country by repeated crosses with more or less pure-bred rams. Since 1891 a great

improvement has been effected in the quality of the mohair as well as the yield of mohair per goat. In 1922 the production of mohair exceeded that of 1891, whereas the number of Angora goats was considerably smaller.

The great decrease in the number of Angora goats since 1911 is to be attributed mainly to the severe droughts of recent years and the limited demand for mohair. The droughts were most severe in the districts devoted largely to the raising of Angora goats and carried off a large number of them. Moreover, there is a limited demand for mohair in view of the fact that its uses are at present confined to such articles as plushes, braidings, dress goods, linings, curtain materials, upholstery materials, summer suitings, etc. The world's annual consumption of mohair ranges between 30 and 35 million lbs., of which South Africa produces more than half. Up to the present mohair has been largely controlled by fashion and limited to certain uses only, but it is not improbable that its use may be extended to many fabrics now made of wool and other fibres.

The mohair industry in South Africa is capable of considerable expansion and is being retarded only by the limited demand. The Angora goat is very hardy and less subject than sheep to disease. It thrives in many parts where sheep cannot be successfully reared and will do well in almost any part of the country where a combination of grass, shrub, bush, and trees is found.

(4) *Horse-Breeding*.—The development of horse-breeding in South Africa may be divided into three distinct periods.

The first period extends from 1652 to 1820, when Arabian and Persian blood was predominant in the Cape horse. The horse is not indigenous to South Africa, but since the earliest days of the occupation of the Cape importations of horses were made. The first horses were imported from Java and were the descendants of Arabian and Persian horses taken over to the East Indies by Arabian traders during the 16th and 17th centuries. Subsequent importations were made from Arabia in 1689, South America in 1778, North America and England in 1782, Spain in 1807, and England again between 1810 and 1820. These imported horses were mainly of the Arabian or Andalusian stock, so that in 1820 still there was a predominance of Arabian blood in the Cape horse.

During this period large numbers of horses were exported from the Cape to India, beginning as early as 1769, to serve as remounts, and to Australia for breeding purposes, beginning in 1810, when Australia obtained from the Cape the first horses introduced into that country.

The second period covers the years from 1820 to the outbreak of the Boer War in 1899. The initial years of this period were

marked by the importation of a large number of English Thoroughbred horses. About 1820 Lord Charles Somerset commenced the movement by importing some Thoroughbred horses from England with a view to improving the Cape horse, and during the three following decades first-class English Thoroughbreds continued to be imported by a number of enthusiastic breeders and sportsmen. Sires from their Thoroughbred studs were again purchased by horse-breeders all over the Cape and crossed with the Cape horses, as a result of which a considerable improvement was effected in the character and appearance of the Cape horse generally.

During the years 1840-60 the Cape horse is said to have reached the highest stage of perfection which it has yet attained. Large numbers of horses were exported from the Cape to India, Ceylon, Mauritius, Bourbon, South America, etc. Many stallions and other horses were bought by the rich Nabobs of India who visited the Cape for health purposes, and for a time Cape horses were famous in India as racers. As remounts the Cape horses acquired a great deal of fame, on account of their exceptional power of endurance, on the battlefields of India, Egypt and the Crimea. These twenty years represented the heyday of horse-breeding in South Africa, the principal centre of the industry being at the time the so-called Hantam in the northern and north-eastern portions of the Karroo.

Then the decline of the Cape horse began, which is to be attributed to several factors. In the first place, owing to the fame of the Cape horse and the great demand for it, many farmers without any special knowledge of the breeding and selection of horses resorted to horse-breeding. As a result of the lack of judgment in the selection of horses, a large number of inferior Thoroughbreds were imported from England and came to be used for breeding purposes, with disastrous results. The Cape lost its export trade in horses. Secondly, the wool, mohair and ostrich feather industries began to make a great deal of headway and encroached upon the preserves of horse-breeding. Thirdly, periodic visitations of horse-sickness carried off large numbers of horses and made stud farmers hesitate to invest any considerable sum of money in horse-breeding operations.

The result was that the Cape horse deteriorated and horse-breeding was neglected for two decades. In order to counteract this tendency, the Cape Government undertook to encourage horse-breeding and improve the local breed of horses by importing a number of Hackney stallions in the late eighties and early nineties ; and this example was followed by various horse-breeders who imported, besides Hackneys, a number of Clydesdale, Oldenburg,

Cleveland Bay, Allenbury and Belgian stallions, while subsequently most of the horse-breeders returned to the Thoroughbred type. In this way the Cape horse was improved and strengthened again by the infusion of new blood, and the improvement was also extended to the Orange Free State which had in the meantime become a formidable competitor of the Cape in horse-breeding. But just as the improvement was being consolidated and diffused over the country, the Boer War broke out and deprived South Africa of one-half of its stock of horses.

The third period extends from 1899 until the present day. After the Boer War, when large numbers of the best horses had been eliminated, the Governments of the respective Colonies in South Africa set to work to build up a new stock of horses. Stallions and mares of the Thoroughbred and other improved types were imported and established on Government stud farms, the progeny being disposed of by sale to horse-breeders; and many horse-breeders followed suit by importing, on their own account, horses of various breeds from abroad to improve their stock. As a result of this, horse-breeding has made rapid progress since the Boer War and replenished the depleted stock.

Number of Horses in South Africa (1823-1922).

Year.	Cape.	O.F.S.	Transvaal.	Natal.	Union.
1823 ..	70,000	—	—	—	70,000
1855 ..	140,000	—	—	—	—
1875 ..	206,000	—	—	—	—
1880 ..	—	132,000	—	—	—
1891 ..	444,000	249,000	—	63,000	—
1904 ..	255,000	76,000	52,000	67,000	450,000
1911 ..	334,000	221,000	89,000	75,000	719,000
1922 ..	432,000	301,000	160,000	95,000	988,000

The South African horse, as at present constituted, is predominantly of Thoroughbred strain, while the Arabian and improved blood of the last quarter of the 19th century has not entirely disappeared. None of the other breeds of horses has established itself to any great extent, although small studs of good horses of other types exist throughout the Union. The tendency at present is to breed from heavy sires in order to increase the size and produce a type for general utility.

Large areas of the Union are eminently suited to horse-breeding. The climate, the pastures, and the constituents of the soil combine to produce a horse with a good constitution, strong bone, tendon and hoof. Greater attention, however, is to be given to proper

breeding and to feeding when the natural vegetation fails, as the comparatively small size attained by the South African horse is due primarily to careless breeding and selection and to deficient nutrition of the young stock during the winter months and prolonged periods of drought. At present there is virtually no export trade in horses.

Asses and Mules.—Asses were imported into South Africa at an early date from the Cape Verde Islands and were most likely of the Andalusian stock of Spain, but it was not until late in the 19th century that the breeding of asses was undertaken in this country on any considerable scale.

During the first half of the 19th century the breeding of mules, *i.e.*, cross-breeding between horses and asses, was taken up on a small scale by the Government Stud Farm in the Malmesbury District, as well as the private stud farms, in order to supply the grain farmers with faster draught animals than the ox to cope with the ever-expanding corn fields. Mules were also imported from the Argentine and Brazil, as the mule was considered to be a very useful and economical draught animal, capable of working upon little food, even of poor quality, and requiring little care and attention. Subsequently, in view of the demand for mules, the studs in the Hantam districts of the Cape also undertook the breeding of mules for draught purposes. By 1875 there were only 29,000 mules and asses together in the Cape Colony, and very few in the other territories, but from now on the breeding of mules and asses progressed more rapidly. With the extension of grain farming in the Western Province, a larger supply of mules was demanded for draught purposes, the mule being considered the most suitable draught animal under the circumstances, while in the interior the ass came to be more widely used for transport purposes and succeeded in supplanting the ox, in many cases only temporarily, in some parts of the country where the rinderpest of 1896 and subsequent years had wrought havoc amongst the oxen.

Number of Asses and Mules in South Africa (1891-1922).

Year.	Asses.			Mules.	
	Cape.	Transvaal.	Union.	Cape.	Union.
1891 ..	45,000	—	—	51,000	—
1904 ..	100,000	32,000	142,000	64,000	135,000
1911 ..	191,000	106,000	337,000	47,000	94,000
1922 ..	436,000	259,000	808,000	79,000	129,000

Asses are bred and used principally in the dry Karroo districts in the north and north-west of the Cape and in some parts of the Transvaal, where they serve mainly as transport animals for traders, poor farmers and others whose object is not to travel rapidly but economically. The ass is frequently styled "the poor man's slave."

A large proportion of the mules are used in the Western Province districts of the Cape, where practically all the draught and transport services in connection with farming operations are performed by mules, and in some of the Karroo districts where they are invaluable as transport animals, being capable of living and thriving on the coarsest and scantiest vegetation. They are also used in towns and villages by contractors, builders and tradesmen. The South African mule, although somewhat light, is strong, hardy, of excellent constitution, comparatively free from disease, and capable of a great deal of work to an advanced age. In order to increase the size and strength of the mule for heavy draught purposes, greater attention should be given to the importation of Spanish jackasses and the selection of horse mares for use in cross-breeding.

(5) *Pig-Breeding*.—The industry of pig-breeding, the main products of which are pork, lard, bacon and ham, is of comparatively recent growth. Pigs were found at the Cape by the early colonists, and the breeding of pigs was undertaken to a small extent, but throughout the period of the Company's rule and until late in the 19th century, it was regarded merely as an insignificant adjunct to other types of farming. By 1823 there were reported to be only 5,700 pigs in the possession of the farmers in the Cape Colony, and in his "State of the Cape of Good Hope in 1822" Bird declares that the Dutch inhabitants displayed a dislike to pork, which also prevailed so strongly among the Mozambique and Madagascar slaves from prejudice, and among the Malays from the tenets of their religion, that it required the eye of the master to see that the pigs were even regularly fed.

By 1875 the number of pigs in the Cape Colony had advanced to 117,000, and from now on, on account of the rapid growth of the population and the development of the country under the stimulus of the mining industry, the breeding of pigs for pork and lard purposes was taken up on a larger scale, more particularly in the Cape Colony but also to a smaller extent in the Transvaal, Natal and O.F.S. However, very little attention was given to systematic breeding and feeding, and in general pig-breeding was still regarded by farmers as a relatively unimportant side-line.

It is only during the last two decades that the breeding of pigs has been conducted on any considerable scale and on business lines.

A number of farmers, realising the profitability of the pig industry, took up the systematic breeding and feeding of pigs for the market, at first mainly for pork, sausage and lard purposes, and later on for bacon and ham as well. With this end in view, importations of pigs of the improved types, such as the Large Black, the Berkshire, the Tamworth and the Middle White, were made from time to time.

These importations served to raise the standard of the bacon pig considerably, and at the same time the establishment of bacon-curing factories provided the necessary incentive to proper and increased production. The output of bacon and ham in factories in South Africa increased from 2,021,000 lbs. in 1915-16 to 6,821,000 in 1919-20, declining to 5,691,000 lbs. in 1921-22, and of lard from 191,000 lbs. to 732,000 lbs. The value of the pigs used by these factories rose from £76,000 in 1915-16 to £450,000 in 1920-21. During the six years just prior to 1916 an average of over 5 million lbs. of bacon and ham, and over a million lbs of lard, were annually imported into South Africa, whereas subsequently the imports of pig products have dwindled down to insignificant quantities, and a small beginning has been made with the export of such products. As a result of this development and the abnormal increase in the demand for pigs, the number of pigs in South Africa declined between 1911 and 1922, as shown in the following table :—

Number of Pigs in South Africa (1823-1922).

Year.			Cape.	Transvaal.	Union.
1823	..	..	5,700	—	5,700
1875	..	..	117,000	—	—
1891	..	..	288,000	—	—
1904	..	..	386,000	156,000	679,000
1911	..	..	506,000	303,000	1,082,000
1922	..	..	476,000	238,000	941,000

Most of these pigs are of the so-called mixed “ Kolbroek ” breed, which has been developed out of the native pig and is distinctly of the porker type. It is very hardy, prolific, and comparatively free from disease, but it is of rather small size, fine in bone, short in body, and grows to maturity slowly. In order to increase the size and weight of the pig and improve the quality of the pork, farmers should pay more attention to systematic breeding and selection of boars and sows, and to proper feeding and housing. The Kaffir pig, which is also found but to a less extent, is long-legged and

narrow in its body conformation. Then there are the pure-bred Large Blacks, Berkshire, Tamworths and Middle Whites, and the cross-breeds of these types.

A great improvement has been made in recent years in the breeding and rearing of bacon pigs, but most of the pigs in the Union are still of an unsatisfactory type for bacon-curing purposes. Under the conditions prevailing in the Union the most economical bacon can, in the majority of cases, be produced by crossing the Berkshire boar and the Large Black sow or the Tamworth sow, or the Middle White boar and the Large Black sow.

With more systematic breeding and feeding and improved management, the industry of pig-breeding for the purpose of producing pork, sausages, lard, ham or bacon will find considerable scope for expansion as an important and profitable side-line to grain farming and dairying in those parts of the Union which have a more or less reliable rainfall and where, consequently, the essential cereals and green fodder crops can be economically produced.

(6) *Ostrich-Breeding*.—The ostrich is indigenous only to the Continent of Africa. In earlier days ostrich feathers could be obtained merely from wild birds in Northern Africa, but after the colonisation of South Africa, where the ostrich was likewise found in a wild state and hunted for its plumes by some of the colonists, such feathers were also to be procured from this part of Africa. For example, in 1821 about 2,500 lbs. of ostrich feathers of a value of £8,600 were exported from the Cape, in 1835-39 an average value of £1,870, in 1845-49 £5,174, and in 1855-59 £12,886.

On account of the extreme shyness and great swiftness of foot of the ostrich, the export of ostrich feathers from South Africa, as well as North Africa, remained on a small scale until the domestication of the ostrich in the Cape Colony, beginning in 1863 when a number of wild ostrich chicks were captured and enclosed in a well-fenced paddock. In 1865, according to the census returns, there were reported to be only 80 ostriches in the possession of farmers in the Cape. However, this method of taming or domesticating the ostrich was not attended with much success.

The problem of the thorough domestication of the ostrich was satisfactorily solved by Mr. Douglass who, in 1869, succeeded in perfecting an incubator and hatching the eggs in large numbers, thereby removing the great obstacle to successful ostrich farming. The successful development of artificial hatching immediately gave a considerable impetus to the ostrich feather industry, and the export of plumes from domesticated birds increased rapidly, soon exceeding that of plumes from the wild birds.

The ostrich feather now came into general use abroad as a form of hat decoration, and for dress trimming, and consequently there was a considerable demand for the article. The price of ostrich feathers rose from £3 per lb. in 1870 to £6 3s. in 1875 and £5 8s. in 1880. At these prices farmers made exceptionally large profits from the sale of feathers or ostrich chicks. This state of affairs induced a mania for ostrich farming. All who could scrape money together plunged into it, and even companies were formed all over the colony to develop the industry. The breeding of ostriches and the production of ostrich feathers multiplied rapidly, with the result that the supply came to exceed the demand and, moreover, that feathers of an inferior quality came to glut the market. The price of ostrich feathers declined from £5 8s. in 1880 to £2 6s. in 1885. The value of the export of feathers fell from £1,094,000 in 1882 to £585,000 in 1885 and £348,000 in 1888, bringing ruin to many of those who had invested large sums of money in ostrich-breeding.

This severe depression was followed by the introduction of better farming methods, such as a more careful selection of breeding birds and a scientific study of the feather and the effect of nutrition on the quality of the plume. The details of management required for the production of successive plumage crops of the highest perfection were worked out. On account of the highly sensitive nature of the feather growth and the depreciation of its quality in the case of inadequate nutrition, considerable attention was given to the construction of irrigation works and the growing of lucerne crops. The quality of the feathers gradually improved, prices rose, and ostrich farming once more became a highly profitable enterprise, yielding unusually high profits in the district of Oudtshoorn.

But the ostrich farmers did not take any heed of the lessons of experience as the diamond industry had done, which had passed through a similar depression in the eighties. No organisation was instituted with a view to limiting the production of ostrich feathers in accordance with the demand, with the result that ostrich farming was undertaken on a very large scale and in many districts of the Cape, such as Oudtshoorn, Albany, Somerset East, Uitenhage, Willowmore, Cradock, Jansenville, Humansdorp, Riversdale, Ladismith, etc. Overproduction was the inevitable consequence. The weight of ostrich feathers exported advanced from 213,000 lbs. in 1890 to 471,000 lbs. in 1905, 741,000 lbs. in 1910, and 1,023,000 lbs. in 1913, when the ostrich farming boom reached its greatest height. Prices began to fall and ostrich feathers went out of fashion for hat decoration. For a time speculators tried to run

the market, but they could not avert the collapse of the feather trade, and consequently of the feather industry. Then the Great War came and gave a further blow to the industry. Prices declined to 15s. per lb. in 1915 and 16s. in 1917 and 1918. After the War, in 1919, the feather trade recovered somewhat, the demand increased, and the prices rose, but owing to the general financial depression and the dislocation of foreign exchanges the demand slackened again, and the industry is still depressed.

There are, however, some signs of revival, and the Union Parliament has voted £8,000 for the purpose of advertising ostrich feathers and finding new markets. As an article of luxury, the ostrich feather is subject to the caprice of fashion. The greatest and most profitable use of feathers is for hats, but besides this a large quantity is used for the manufacture of ostrich feather fans and trimming for opera cloaks and evening dresses, and for padding clothes used in cold climates. Advertisement might do a great deal to revive the industry and new uses might be found for ostrich feathers, resulting in an increased demand, but, in order to stabilise the industry as far as possible, it is essential that the ostrich farmers make a study of the economics of the ostrich feather industry and organise with a view to limiting the production of ostrich feathers in accordance with the demand.

*Number of Ostriches and Value of Ostrich Feathers Exported
(1835-1922).*

Year.	Number of Ostriches.		Exports of Ostrich Feathers.	
	Cape.	Union.	Total Value.	Average Value per lb.
1835	—	—	£ 1,930	£ s. 3 2
1865	80	80	66,000	3 15
1875	22,000	—	305,000	6 3
1882	—	—	1,094,000	4 6
1891	155,000	—	468,000	2 7
1904	358,000	361,000	1,059,000	2 5
1913	757,000	776,000	2,954,000	2 18
1916	379,000	399,000	486,000	1 1
1922	264,000	268,000	394,000	1 3

(7) *Poultry-Breeding.*—During the past 15 years considerable progress has been made in poultry-breeding in South Africa. It has developed from a hobby into a profitable side-line on practically every farm and in every town throughout the Union. In

recent years farmers have generally taken a keener interest in poultry than formerly, and the efforts of cottagers and small holders have contributed in no small degree to the advance of the poultry industry of the Union. There are, however, comparatively few farmers who have made a special industry of poultry-keeping.

Naturally the greatest development has taken place in the vicinity of the larger towns and consuming centres, where there is a ready market for the disposal of eggs and table poultry, and where the prices of high-class produce are attractive. It is in the vicinity of the larger centres that those, who make their living entirely out of poultry-keeping, are usually located.

Poultry societies have brought before the public the value of pure-bred poultry. Agricultural Societies and the Government Agricultural Schools have done a great deal, through the medium of egg-laying competitions, to promote the poultry industry. Co-operative egg-collecting circles have also contributed to popularising the industry, especially where it is carried on in conjunction with creameries. The production of eggs has been increased to such an extent in recent years that an expanding export trade in eggs has been built up since 1914, rising to 23 million eggs of a value of £205,000 in 1921, whereas during the four years just prior to 1915 an average of 16 million eggs were annually imported into the Union. Fortunately for South Africa, the season when eggs are plentiful here coincides with the off-season in England.

In 1921, according to the census returns, there were 9,418,000 fowls, 357,000 ducks, 236,000 turkeys and 216,000 geese in the Union. The poultry belonging to Europeans were distributed as follows: Cape Province, 34·2 per cent.; Transvaal, 31·9 per cent.; Orange Free State, 20·8 per cent., and Natal, 13·1 per cent.

CHAPTER 7.

MINING INDUSTRY.

Introductory.—The mining industry has indeed made a significant contribution to the economic development of South Africa, although it has not by any means been an unmixed blessing. It introduced a highly speculative element into South Africa and attracted an enormous amount of capital to speculative mining enterprises, a large proportion of which was irretrievably lost owing to bad judgment, or overconfidence, or the manipulations of unscrupulous directors and financiers. Some gold and diamond mines proved to be extraordinarily rich and yielded enormous dividends, with the effect that a premium was placed on speculative capital and a high standard of profits was set ; and, in view of the fact that the gold and diamond mines were located in isolated and barren sections of the country, an unusually high standard of wages was set from the outset in order to attract an adequate supply of labour. Moreover, the mines have been instrumental in diverting the attention of the State, capitalists, financiers, investors, and men with exceptional organising, administrative, engineering and inventive ability, from the less remunerative but more reliable and permanent enterprises in agriculture, stock farming, manufacturing, transportation, etc. They have also brought about a great deal of political strife, social disorder and class antagonism, and inconsistency and instability in the economic organisation. And to the extent that it has encouraged the speculative and gambling element with all its accompanying disadvantages, the mining industry has been the means of engendering an unwholesome economic environment.

On the other hand, the mining industry furnished the necessary instruments of economic progress. Prior to 1870 the various territories in South Africa progressed very slowly, as they were in need of capital for the expansion of the modern facilities of transportation, communication and banking, a larger European population, a greater diversification of occupations, a wider local market, more productive sources of revenue for the State, and, above all, valuable commodities of small bulk for export with a view to acquiring an increased purchasing power abroad and obtaining the many manufactured articles required by the community. All these needs were satisfied by the mining industry, directly or indirectly, with the result that rapid development ensued, which lifted those struggling territories out of their comparative insignificance in 1870 to a position of undoubted commercial importance on their being united into one legislative union in 1910. In fact, it is to be regretted that the development was so very rapid, as certain sections of the community, reared under the old slow changing

environment, could not readily adapt themselves to the rapidly changing conditions and succumbed in the struggle to the more enterprising and resourceful.

Mineral Production.—The extent and the variety of the mineral resources of South Africa, more particularly of the Transvaal, are known to be unique in the world. Of all the mining countries of the world South Africa yields the largest per capita mineral production, and is the principal producer of gold and diamonds.

Value of Mineral Production of Union, 1917-21.

Classification.	1917.	1919.	1921.
Value of Mineral Production ..	£52,260,190	£56,959,377	£54,268,086
Per Capita of White Population ..	£36 10s.	£38 10s.	£35 13s.
Per Capita of Total Population ..	£7 18s.	£8 10s.	£7 16s.

The mineral production of the Union is on an average £37 per capita of the white population and £8 per capita of the total population, as compared with £6 10s. in the case of Chili, £6 in United States of America, £5 in Australia, £4 in Canada, £3 in Great Britain, etc.

The total value of the production of the five principal minerals of the Union up to the end of 1923 has been estimated at about £1,101,000,000, of which gold accounts for £785,000,000, diamonds £225,000,000, coal £63,000,000, copper £23,000,000, and tin £5,000,000. The Transvaal has yielded minerals of the value of about £855,000,000, or 77½ per cent. of the total, followed by the Cape with £195,000,000, Natal £26,500,000, and the Orange Free State £24,500,000.

Export of Minerals.—Minerals account for the great bulk of the value of our exports, as shown in the following table :—

Value of Export of Minerals (as compared with total exports).

Year.	Products of Mines.	Total of Exports.	Percentage of Total.
	£	£	%
1913	51,856,000	66,569,000	78
1916	48,586,000	65,683,000	74
1919	66,886,000	106,403,000	63
1921	49,786,000	74,354,000	67

State Revenue from Mining Industry.—The Union Government derives a considerable revenue from the mining industry, the importance of which may be gauged by the fact that in 1920-21 mining revenue represented about 15 per cent. of the total revenue of the Union, and in 1922-23 9·8 per cent. The low figure for the

latter year is to be attributed to the strike on the gold mines in the beginning of 1922 and the depression in the diamond trade.

Mining Revenue of the Union, 1920-21 and 1922-23.

Classification.	1920-21.	1922-23.
(1) <i>Income Tax</i> :	£	£
Gold Mines	1,189,956	834,000
Diamond Mines	538,751	—65,000
Other Mines	103,133	92,000
(2) <i>Export Duty on Diamonds</i>	810,463	588,000
(3) <i>Government Ownership Share of Profits</i> :		
Gold Mines	1,108,511	935,000
Diamond Mines	799,797	14,000
Other Mines	4,332	500
(4) <i>Licences and Mynpacht Dues</i>	272,279	266,000
Total	£4,827,222	2,664,000

Employees, Wages, Stores, Capital and Dividends.—The significance of the mining industry in the economic life and organisation of the Union is further illustrated by the following table, which shows, with reference to the year 1921,¹ (1) the number of European and coloured employees engaged in mining operations ; (2) the salaries and wages paid out by the mines ; (3) the value of stores consumed ;² (4) the capital issued by registered mining companies ;³ and (5) the dividends declared by such companies.

Classification.	Gold Mines.	Diamond Mines.	Coal Mines.	All Mines.
No. of Employees ..	202,930	(1911) 60,476	39,911	324,000
Wages ..	£ 16,687,653	2,789,589	2,095,771	Eur. 38,000 Col. 286,000 22,347,422
Stores ..	£ 14,440,000	1,450,000	1,854,000	Eur. 14,326,416 Col. 8,021,006
Issued Capital ..	£ 64,787,000	8,619,000	10,031,000	18,092,000
Dividends ..	£ 7,260,000	2,681,000	700,000	88,593,000
„ ..	% 11.2	31	7	10,650,000 12

¹ With the exception of the diamond mines, in which case the year 1911 has been taken as a more reliable basis in view of the fact that in 1921 the diamond industry was in the throes of a depression, whereas the years 1912, 1913, 1919 and 1920 were “boom” years.

² About one-half of the value of the stores consumed by the mines is represented by South African products, such as foodstuffs for the native labourers consisting mainly of maize meal and meat, coal, lime, explosives, etc. ; while the goods imported from overseas consist principally of machinery, belting, steel, zinc, timber, candles and cyanide.

³ See page 250.

(1) *Gold Mines*.—Rumours concerning the discovery of gold were current in the Transvaal as early as 1854, but at first it was discountenanced by the Transvaal Government on political grounds. It was feared that the introduction of a mining population would endanger their newly-acquired independence, and, accordingly, prospecting was prohibited. However, after the discovery of the Tati goldfield by Carl Mauch, the German explorer, in 1865, the restrictions upon prospecting were withdrawn; and in 1872 the first gold law⁴ was passed by the Volksraad, in accordance with which the right to all minerals was vested in the State and provision was made for an equitable distribution of the prospective mineral wealth of the country as between the Government, the owner of the land, the prospector or discoverer, and the public.

Minor Discoveries.—In 1870 gold was discovered in the Murchison Range, in the Pietersburg district of the Transvaal, and quartz mining was undertaken on a small scale. For many years a steady output of gold was maintained by the quartz mines in this district, but all the enterprises in which any considerable capital was invested turned out to be failures, and at present mining is almost entirely in the hands of individuals working their own claims, or of small syndicates.

In 1873 alluvial deposits of gold were found at Pilgrims Rest, in the Lydenburg district, also in the Transvaal, where gold washing was carried on for several years until the deposits were exhausted and the diggers directed their attention to the gold-bearing reefs and beds also found in this area. It was the only important alluvial goldfield ever exploited in South Africa and yielded an appreciable quantity of alluvial gold for a number of years. Subsequently the auriferous beds were exploited by private individuals as well as several large companies, some of which are still in operation.

In 1882 the goldfields in the De Kaap valley, fifty miles south of Lydenburg, were opened up, and in 1885 the rich Sheba mine was discovered there. At the same time the town of Barberton was founded, which became the centre of the De Kaap fields and soon attracted a population of 10,000. For a time these goldfields produced a large amount of gold, but they were not destined to maintain an important place in the mining industry of the Transvaal. A new goldfield (the Witwatersrand) had been opened up, which

⁴ The gold law of 1872 and successive enactments were codified in 1885 by the "Consolidated Gold Law." The owner and the prospector were entitled to a certain number of claims, and the remainder of the area was declared open to the public for the pegging of claims, subject to the payment of licence fees to the Government. *Vide* Chapter 15.

surpassed in magnitude all the other goldfields that had been discovered in the Transvaal or in any other part of the world before or since that date. The Barberton quartz mines gradually declined and, like the Lydenburg and Pietersburg goldfields, were deprived by the Rand mines of a large part of their mining population. At present the Barberton mines are worked on a comparatively small scale by private owners and small capitalists.

The Witwatersrand.—The discovery of the Witwatersrand goldfield, the largest and most permanent goldfield in the world, was the result of prospecting and experimenting by the Struben brothers. In 1884 they had commenced mining operations on the farm Weltevreden on the Witwatersrand, with the aid of a five-stamp battery, and found that the ore from a reef which they had discovered yielded a good return of gold. On continuing their prospecting, they struck the actual conglomerate or “banket” beds of the Witwatersrand, in 1885, and carried out test crushings of the ore from these beds, the results of which were so satisfactory that the Transvaal Government proclaimed the Witwatersrand a public goldfield in September, 1886. Almost immediately a mining camp came into existence, which was converted into the township of Johannesburg even before the end of that year and was destined to become the leading industrial centre of South Africa.

Production of Gold.—Since that date the gold-mining industry in the Transvaal has advanced very rapidly, as illustrated in the following table :—

Quantity and Value of Gold Produced in Transvaal (1886-1923).

Year.					Quantity.	Value.
					Oz.	£
1886	..	..	..	..	8,171	34,710
1890	..	..	..	..	440,152	1,869,645
1895	..	..	..	..	2,017,443	8,569,555
1898	..	..	..	..	3,823,367	16,240,630
1900	..	..	..	..	348,761	1,481,442*
1902	..	..	..	..	1,717,944	7,297,351*
1905	..	..	..	..	4,908,087	20,848,273
1910	..	..	..	..	7,527,108	31,973,123
1915	..	..	..	..	9,093,902	38,628,437
1920	..	..	..	..	8,158,226	45,605,764†
1923	..	..	..	..	9,149,073	41,575,000†

* Anglo-Boer War.

† Including gold premium.

The development of gold mining on the Witwatersrand into the most important individual industry of South Africa and the largest unit of its kind in the world, with an average production during

the last decade of about £38,000,000 per annum, or about one-half of the world's annual production of gold, has indeed been a remarkable achievement over a period of 30 years. It has been brought about by the combined operation of the following factors :—

- (1) Uniformity and extent of the conglomerate beds or gold-bearing deposits ;
- (2) improvements and adaptations of the mechanical and chemical processes of gold mining ;
- (3) proximity of valuable coal deposits ;
- (4) ability to attract a large amount of foreign capital ;
- (5) cheap unskilled labour.

Conglomerate Beds.—The conglomerate beds of the Witwatersrand, in which the gold occurs, represent a geological formation almost peculiar to the Transvaal. These beds are composed of quartz pebbles bound together by a siliceous cement containing iron pyrites. The gold contained in the conglomerate is not often visible to the naked eye, as it occurs almost invariably in the matrix in very fine particles, its existence in the pebbles having been recognised only in rare instances. This has rendered gold-mining on the Rand unique, gold being extracted from conglomerate pebble beds whereas in almost all other countries it is extracted from quartz lodes.

The renowned mineral wealth of the Witwatersrand is not to be attributed to the richness of the deposits, as the ore is of a relatively low grade, but to the considerable extent, uniformity and continuity of the conglomerate beds, locally known as reefs. The Witwatersrand gold basin is about 100 miles long and 30 miles wide, and is located on an elevated plateau, nearly 6,000 feet above the sea. In this basin there are several series of reefs of greater or less value in planes more or less parallel to each other, known as the Main Reef series and the Bird, Kimberley, Elsburg and Black Reef series. The great bulk of the Rand output of gold is obtained from the mines on the Main Reef series,⁵ the principal section of which extends over an area 26 miles in length, from Boksburg on the east to Roodepoort on the west, with Johannesburg as the centre. Although gold is found in all the other series of reefs, it is only the Main Reef series which has justified exploitation on a large scale.

The irregularity of quartz reefs has rendered gold-mining in all countries, and at all times, a highly speculative enterprise, but in the Transvaal, on account of the exceptional continuity of the reefs,

⁵ The Main Reef series has been proved to persist in a continuous line, with but trifling interruptions, for 61½ miles.

both laterally and clinometrically, that industry has passed for the first time in history out of the speculative stage and become a secure and established enterprise. At an early stage already it was proved by boreholes that the reefs maintained at great depths (about 4,000 or 5,000 feet) the same average grade of ore as was found on the outcrop, with the result that deep-level mining also came into vogue. This has been further encouraged by the fact that the reefs, after a dip of a few hundred feet, gradually flatten out and have in several cases been found to be richer than at their outcrop, and that on the Rand, mainly owing to its high elevation, the temperature rises only one degree Fahrenheit to every 200 or 250 feet, as against a normal rise of one degree to every 65 feet, which makes it possible to mine at a greater depth than elsewhere.

Improvements in Mechanical and Chemical Processes.—In the initial stages, mining operations were characterised by considerable energy on the part of the pioneers. The reefs were opened along the surface, inclined shafts sunk on their dips, and the ore treated under the usual difficulties of pioneer mining, viz., excessive water, want of material, inefficient labour, etc. In addition, light five-stamp batteries and other requisites of the mines and the mining population had to be imported from abroad through Cape Town and Durban and transported up to the isolated plateau on ox wagons, at very high cost, for several hundred miles from the railway terminus either at Kimberley or in the vicinity of Pietermaritzburg.⁶

During the first five or six years (1886-92) mining operations on the Rand were confined mainly to exploiting the outcrop of the conglomerate beds and crushing the higher grade ore; but when the rich oxidised zones of the outcrop mines on the Central Rand began to show signs of exhaustion and it became necessary to use the lower grade ore and mine at greater depth, more attention was given to such problems as a higher extraction of gold from the ore, the sorting of the broken rock into gold-bearing and non-gold-bearing, and a reduction in working costs.⁷

The problem of securing a high extraction of gold from the Witwatersrand conglomerate ore was not easily solved. The gold occurs in such fine particles that the ordinary *amalgamation process*,

⁶ It was not until 1892 that railway communication was established between the Cape ports and the Rand, and it was only in 1894 and 1896 that Lourenço Marques and Durban were brought into direct communication with Johannesburg.

⁷ At first the development of the mines was considerably hampered by the lack of experience in connection with the mining of that particular class of gold-bearing reef. The geologists and engineers made numerous mistakes, and it was only as the result of years of experience and the expenditure of large sums of money that methods, which are nowadays regarded as routine functions, were adopted and standardised.

which was used alone at first, was not able to extract more than 50 or 60 per cent. of the gold in the ore. Under the amalgamation process the ore is passed in a finely divided state over a copper plate coated with mercury, when the "free" particles of gold in the semi-fluid mass adhere to the mercury on the plate. The gold amalgam is then scraped off the plates and heated in a retort, the mercury distilling over and the gold remaining.

Various attempts were made to improve the amalgamation process, but without much success. Then it was attempted to supplant amalgamation by concentration and chlorination processes, but even this did not prove to be satisfactory. There was need of a more complete chemical treatment, which was finally obtained by means of the MacArthur-Forrest *cyanide process*. Under this process the gold, which is either too small to be caught on the amalgamated plates or is in combination with other elements, is dissolved in solutions of cyanide from which the gold is recovered.

The cyanide process was not immediately adopted by the mines, on account of the prohibitive working costs. Although the first public test had been made in 1890, it was not till 1892 and 1893 that it began to make headway. Improvements were made and the process was gradually extended. Larger cyanide vats came into use and the working costs were reduced by a variety of improved mechanical methods.

The significance of the cyanide process in the gold-mining industry on the Rand can hardly be over-estimated. Under the amalgamation process the mines could not recover more than about 60 per cent. of the gold from the ore, whereas the combination of the amalgamation and cyanide processes enabled the mines to extract about 95 per cent. of the gold. Of the gold recovered by the mines, about two-thirds are obtained by the amalgamation process⁸ and one-third by the cyanide process. If this improved chemical process had not been instituted, the gold industry would never have assumed such gigantic proportions, on account of the relatively low grade of the ore.

It has been calculated that the conglomerate ore of the Rand contains one particle of gold to 80,000 or 90,000 particles of waste

⁸ During the last two years, however, concentration by means of corduroy tables has almost completely displaced amalgamation by means of copper plates. This process recovers 45 to 55 per cent. of the gold as a concentrate, which is subjected to special treatment by grinding and amalgamation in barrels or small tube mills. The change has resulted in both direct and indirect economies of considerable value to the industry, including an increase in the recovery of the metals of the platinum group (platinum, iridium, osmium, ruthenium and rhodium), and from a health point of view it has been of great benefit to the employees, as the handling of mercury and amalgam frequently brought about mercurial poisoning.

material, so far as weight is concerned, but in volume it is only about one in 600,000. As compared with other gold-bearing regions, the value of the yield of gold per ton of ore on the Rand is very low. Prior to 1900 the average yield per ton of ore was about 43s., and during the last decade about 29s., whereas in the United States of America it ranges from 100 to 200s., in Australia from 60s. to 140s., in India 90s., and in Mexico and Canada 50s.

During the years (1890-92) in which the cyanide process was being put to the test of commercial success, vigorous attempts were also made to improve the mechanical processes of mining. Improved mining and milling machinery was introduced, adequate pumping machinery was erected, and machine drills were used to their full capacity. The falling weight of the stamp has been gradually increased from 750 to 2,000 lbs., and the tonnage of ore crushed per stamp per day from 2 to 30 tons. This great advance in efficiency is to be attributed mainly to the tube mill, a mechanically revolved steel cylinder, which was introduced in 1904.

There has also been a substantial enlargement of the reduction works on the Rand. At present there are plants capable of handling 7,000 tons of ore a day, whereas not many years ago such works were constructed to treat only a few hundred tons a day. Extensive use is made of electric power, which is developed by four central stations, three on the Rand and one at Vereeniging, 40 miles south of Johannesburg, whereas at first every mine had to generate its own power.

With the development of mining on the Far East Rand new problems confronted the metallurgist. Investigations showed that certain areas in this district yielded ore of a much more refractory character than that of the Central Rand. This refractoriness is principally due to the extremely fine condition of the major portion of the gold, of which a high percentage is closely encased in silica and pyrite, requiring much finer grinding if the high extraction of 95-97 per cent., easily obtainable on the Central Rand, is to be maintained. Consequently metallurgical practice has developed in the direction of the all-sliming process instead of the separate treatment of sand and slime. In view, however, of the fact that the all-sliming of the hard ores of the East Rand involves a greatly increased power cost, it leaves only a small margin of increased profit.

As a result of the increased efficiency and the greater use of labour-saving devices, the working costs were reduced from an average of 30s. per ton prior to 1900 to 17s. in 1914. Since 1914 the cost of operation has been considerably enhanced by the rise in wages and the prices of materials, but recently a reduction of

working costs has been brought about again. For 1923 the average was 20s. per ton as compared with 25s. 8d. in 1920 and 1921.

Proximity of Coal Deposits.—The proximity of coal deposits is another important factor in the development of gold mining on the Rand. It is one of the forces which have rendered it possible to conduct gold mining on such a large scale as does prevail in the Transvaal. Coal was discovered near Boksburg in 1887, the year after the declaration of the Rand as a public goldfield, and almost immediately collieries sprang up in the neighbourhood of the gold mines. Following upon the discovery at Boksburg, large seams of good coal were opened up in the Middelburg District, and, with the aid of good railway communication to Johannesburg, the Middelburg collieries now supply the bulk of the coal used by the mines. The existence of a plentiful supply of good coal in close proximity to the gold mines is a factor of great economic significance.

Foreign Capital.—The ability to attract a large amount of foreign capital was likewise one of the important factors in the establishment and growth of the Witwatersrand gold-mining industry. At first it was the purely speculative capital which was attracted, in view of the fact that gold mining was always regarded as a speculative enterprise; and, moreover, it was handled by the promoters and directors of some of the first mining companies in a highly speculative manner. A number of mines were exploited by directors who served their own ends rather than those of the shareholders for whom they acted as trustees, while many companies were floated in the hope of striking large patches of rich ore in certain sections of the Rand, but resulting in almost complete failure. This was especially the case with companies floated on the Bird, Kimberley and Elsburg Reefs. In most of these cases, however, investors were attracted to these speculative ventures in the full knowledge that they were risking great losses in the hope of reaping very considerable gains.

At the end of the year 1888 there were no less than 44 companies on the producing list. A speculative boom had been set in motion, which reached its highest point in 1889. In this year the nominal capital of companies producing 306,000 ounces of gold (value of £1,300,000) was £6,800,000, but was inflated to £13,255,000. Some directors even resorted to speculation in the shares of their companies, declaring large dividends which were never earned but paid out of capital. This was designed to raise the prices of their shares to a highly artificial level, when they would sell out and make a tremendous gain.

This over-speculation and over-capitalisation naturally led to a crash at the end of 1889, with disastrous effects on the credit of the industry at a time when it was in great need of new capital for development and equipment. As mining came to be undertaken at greater depth, after the surface ores of the outcrop mines had been exhausted, excessive water and harder rock had to be contended with, and new and more powerful machinery became necessary. In the endeavour to carry on the development of their mines in advance of their mills, many companies exhausted their working capital. Reconstruction was resorted to, but during its incident delays some companies retired from the producing list.

In 1890 the mines were able to secure more working capital. New and better equipment was installed and mining operations were conducted on a larger scale. Most of the mines were now placed on a sound working basis. In 1891 a good deal of progress was made and many mines could pay substantial dividends. In 1892 there was a marked improvement and a considerable increase in the output. An amount of about £1,000,000 was distributed in dividends, which meant the general restoration of confidence amongst investors, accompanied by a steady rise in the market value of shares. This was of great significance as it was now contemplated to undertake the mining of the deep-level reefs, in view of the gradual exhaustion of the richer ores of the outcrop mines. Several large companies were formed in that year for this purpose and were assisted by the flourishing condition of the industry to attract the large sums of money required for deep-level mining.

From now on the gold industry progressed very rapidly. There were still some cases of capitalist adventurers manipulating companies and the capitalisation of mines. For example, by 1900 50 mining companies had been reconstructed 190 times; that is, on an average each company had its capital manipulated nearly four times. It must be emphasised, however, that while some reconstructions were undoubtedly swindles, the majority were effected for the purpose of increasing the capital of the companies so as to provide suitable and adequate machinery and acquire new or adjoining properties. Anyway, that year marked the end of practically all the glaringly dishonest practices. The introduction of deep-level mining had led to the formation of syndicates and powerful corporations, such as the Rand Mines, Ltd., the Rand Deep Levels, Ltd., the Rand Consolidated Deep Levels, Ltd., etc., and the adoption of sounder and more secure methods of finance. Many of the capitalists fully realised the fact that the mines controlled by them were to be operated in accordance with recognised commercial principles and honest practices, in order that they

might retain the confidence and trust of foreign investors and always obtain capital for new flotations; and they became the leading capitalists of the Rand. Only a few of the mining companies under the control of these capitalists were ever wound up, although there were still examples of over-capitalisation and undue distribution of unearned vendor shares.

The system of "group" control on the Rand has played an important part in the development of the gold fields. At first every mine was worked quite independently. There were no financial firms of standing, which made mining a specialty, controlling a number of properties; and by far the majority of the mines were financed and worked by different interests. As the Rand developed, men controlling large amounts of capital appointed agents on the Rand to obtain promising holdings for them, and in this way the "house" of H. Eckstein & Co. came into being, who were the first to organise themselves, and who founded the first "group" of importance, viz., the Rand Mines, Ltd. Messrs. Eckstein & Co.'s example was rapidly followed, and within a few years there were established the "big houses" which control the majority of the mines of the Rand at the present time. Besides Eckstein & Co., the most influential of the mining houses, there are the Consolidated Goldfields of South Africa, Ltd., Barnato Bros., Neumann & Co., Goerz & Co., Ltd., G. & L. Albu, J. B. Robinson, Farrar Bros., Lewis & Marks, etc. The establishment of these large financial houses has rendered it possible to secure the large sums of money required to develop the gold mines to their full capacity, and more particularly the deep-level mines.

Prior to the Boer War the gold industry was severely hampered by the system of monopolies and concessions which prevailed under the Kruger Government and tended to keep the cost of operation and the cost of living at a high level. The most important of these were the dynamite monopoly, the railway monopoly, and the brick and cement monopolies. During that war (1899-1902) gold mining could only be conducted on a small scale. In 1900 gold was produced to the value of £1,481,442 only, and in 1901 £1,097,219, but immediately after the conclusion of hostilities in May, 1902, the enterprise was undertaken with vigour again. By 1904 already the gold production amounted to £16,000,000. Under the Crown Colony Government various measures were taken to render the conditions of gold mining more favourable, with the result that more capital was invested in the mines and that the gold industry advanced by leaps and bounds until, in 1912, the production of gold amounted to £38,000,000, the average for the last decade.

On December 31st, 1921, the capital⁹ issued by registered gold-mining companies in the Union was officially stated to be £64,673,000, and the dividends declared during that year amounted to £7,260,000, *i.e.*, 11.2 per cent. of the issued capital. In 1923 the gold industry was in a more flourishing condition, and an amount of £8,500,000 was distributed in dividends, equivalent to 13 per cent. of the issued capital. There were many mines which paid out dividends varying between 20 and 140 per cent. in 1923, such as Modder Deep 140 per cent., Modder "B" 110 per cent., New Modderfontein 100 per cent., Meyer and Charlton 100 per cent., Crown Mines 67½ per cent., Government Areas 60 per cent., City Deep 45 per cent., etc., but there is also a large number of mines which fall below the 10 per cent. mark, such as New Unified 5 per cent., Nourse Mines 8¾ per cent., Geldenhuis Deep 5 per cent., New Kleinfontein 2½ per cent., Consolidated Main Reef 6¼ per cent., Sub Nigel 7½ per cent.; and there are even some which work at a loss or pay no dividends.

This great variation in dividends ought to be taken into account in connection with the taxation of the profits or dividends of gold mines. The normal income tax and the dividend tax, as applied to gold-mining companies, ought not to be uniform taxes, *i.e.*, 1s. 6d. in the £ whether the dividend is 2 per cent. or 100 per cent., but, in order to comply with the requirements of justice in taxation, and avoid undue pressure on the low grade mines, these taxes should be graduated on a sliding-scale basis in accordance with the percentage of net income or dividends, according as the one or the other can be administered more justly in practice.

Cheap Unskilled Labour.—The existence of a large supply of cheap unskilled labour, drawn from the native population of the Union and neighbouring territories, was another important factor in the success of the gold-mining industry. At first the mines experienced a great deal of difficulty in attracting an adequate supply of native labour, but to meet this difficulty an elaborate system of recruiting was devised, under which labour agents traversed the great centres of the native population in the Transvaal, Orange Free State, Natal, the Cape, Rhodesia, Portuguese East Africa, etc., and secured large numbers of native labourers for the mines. On certain occasions

⁹ The nominal value of the shares issued. The issued capital figure does not take account of the premium at which the shares were issued, or whether the shares were issued for cash or property or the services of promoters, or of the profits which were appropriated for the development of the mines.

Although no accurate statistics are available, it appears to be quite certain that the ratio of net profits to the total capital expenditure incurred by the gold mines (*i.e.*, the total working capital expended by the mines plus the value of the consideration given for the mining lands and rights) is substantially lower than the ratio of dividends to issued capital.

there has been an acute shortage of unskilled labour in the gold mines, as for example during the first four or five years after the Boer War, when even Chinese were imported to supplement the supply of African native labour, but in general the gold industry has been able to satisfy the great bulk, at any rate, of its requirements of unskilled labour at a relatively low cost.¹⁰

As a result of the combined operation of the abovementioned factors, the gold-mining industry of South Africa, which is almost entirely confined to the Witwatersrand, has come to assume the leading rôle in the world's production of gold and to make an important contribution to the general rise in world prices after 1896. In 1910 South Africa produced 34 per cent. of the world's output of gold, and in 1921 52.3 per cent., as shown in the following table :—

South African Output of Gold as compared with that of the World.

Period.	World's Output.	South African Output.	Percentage of World's Output.
	£	£	%
1850-1875 (average)	25,000,000	—	—
1875-1890 (average)	22,000,000	—	—
1887	21,735,000	170,000	.8
1897	48,509,000	11,654,000	24.0
1907	84,769,000	27,401,000	32.3
1910	94,136,000	31,973,000	34.0
1921	$\int$ 66,000,000* $\cup$ 82,000,000†	$\int$ 34,528,000* $\cup$ 43,082,000†	52.3

* Valued at standard price of £4.24773 per fine ounce.

† Including gold premium.

South Africa has thus been producing a progressive proportion of the world's output of gold. The decline in the value of the world's output in 1921, as compared with 1910, is to be attributed mainly to the crisis in the gold-mining industry, which has been brought about by the abnormal conditions prevailing during and after the World War. There was a decline in the world's production of gold from 22,160,000 fine ounces in 1910 to 15,500,000 in 1921, *i.e.*, a reduction of about one-third.

Crisis in Gold Industry.—The crisis in the gold industry was primarily due to the fact that, during the War, the price of gold had remained stationary at £4.24773 per fine ounce, while the prices of all other commodities were advancing. There was a considerable rise in the cost of operation on account of an increase in wages and in the prices of stores and materials, with the result that the margin

¹⁰ Treated in greater detail in Chapter 17.

of profit was reduced. In some cases a loss was even incurred on the working of the mines. This applied to the gold industry throughout the world, but in South Africa, due to the slower upward movement of prices and wages ¹¹ than in many other countries during the War as well as the wide margin of profit normally gained, the crisis was held back until the beginning of 1919. In 1915, 1916 and 1917 there was actually an increase in the output of the Rand gold mines over that of 1913 and 1914, but in 1918 the decline commenced and proceeded through 1919, 1920 and 1921. However, the decline was much less in South Africa than in the world taken as a whole, viz., from 9,297,000 ounces in 1916, the high-water mark of gold production in South Africa, to 8,129,000 in 1921, which is a reduction of only one-eighth.

In reply to representations made by the mining industry, a Commission (known as the Low Grade Mines Commission) was appointed by the Government in June, 1919, to inquire into and report upon the position of the Rand gold mines working at a loss or at a small and diminishing profit. The Commissioners reported that, as a result of the rise in the cost of operation due to the rise in wages and prices and a shortage in the supply of natives, there were 21 mines producing £1,000,000 of gold per month at an average working loss of 0.6d. per ton of ore, whereas under pre-war conditions most of these mines would have been working at a small profit. Working costs had increased from 17s. 5d. per ton in 1914 to 25s. 5d. at the beginning of 1920. Their main recommendations were : (1) greater co-operation between the management and the employees to be secured by work committees and joint committees ; (2) the re-arrangement of underground work so as to increase the effective working period of natives ; and (3) the temporary employment of natives from north of latitude 22° south to supplement the deficiency of native labour.

Premium on Gold.—The principal relief to the gold mines, however, emanated from the premium on gold, which resulted from the depreciation of inflated paper currencies as compared with gold. Prior to the World War the gold mines had disposed of all their gold in London at par value in British currency, which was based on the gold standard at the time, the mines paying the charges for freight, insurance and refining. On the outbreak of war in August, 1914, arrangements were entered into with the Bank of England in accordance with which all South African gold was purchased by the Bank at the standard rate, but subject to increased charges for freight, insurance and refining.

¹¹ Working costs rose from 17s. 1d. per ton in 1914 to 19s. 2d. in 1917, 22s. 11d. in 1919 and 25s. 8d. in 1920.

This agreement was terminated in July, 1919, when new arrangements were made in view of the decline of sterling exchange on New York, *i.e.*, the value of the English paper pound in terms of the American gold dollar. The exchange between New York and London served as a reliable index of the extent of the depreciation of the British paper currency as compared with gold. In other words, there was a premium on gold in terms of British currency, and, accordingly, the mines made representations for the establishment of a free gold market in London so as to enable them to obtain that premium on gold. Under the agreement of July, 1919, the gold was shipped to London, consigned to the Bank of England, but sold by the agents of the mines (Messrs. Rothschild) in the London market at the best price obtainable. Since that time the price of gold in London has been subject to considerable fluctuation, reaching a maximum of 127s. 4d. per fine ounce on February 5th, 1920, in contrast to the standard rate of 85s. when British currency was representative of gold. Subsequently, as the English exchange improved, the price of gold declined to an average of 103s. 1d. during the last quarter of 1921, 93s. 6d. in the second quarter of 1922, and 87s. 6d. in February, 1923, but in view of the subsequent fall in English exchange on New York, the price of gold advanced to 91s. in October, 94s. 6d. in December, 1923, and 95s. in July, 1924.

In 1919 the premium on South African gold amounted to £3,889,000, in 1920 £10,951,000, and in 1921 £8,554,000. This afforded a good deal of relief to the gold mines and enabled the low grade mines to continue operations at a profit, since the cost of operation did not rise as rapidly and to the same extent as the price of gold. For example, the average working profit per ton of ore was 6s. in 1918, 8s. 6d. in 1919, 9s. 7d. in 1920, and 9s. 6d. in 1921. But when, at the beginning of 1922, after the rise of wages had virtually caught up with the premium on gold, the price of gold began to decline rapidly, due to the improvement in England's commercial position, the low grade mines were once more working at a loss or showing only a small margin of profit. The benefit derived from the premium on gold came to be counterbalanced by the rise in the cost of operation. Accordingly, the Chamber of Mines carried on negotiations with the Industrial Federation with a view to reducing the ratio of European to coloured employees as well as the wages of European miners. The result was a prolonged industrial struggle and a general strike from March 7th till March 18th, 1922, the outcome of which was that the number of European miners was reduced by about 3,000 and the cost of living allowance withdrawn altogether.

In this way the gold mines succeeded in reducing their working costs from 25s. 8d. per ton in 1921 to 19s. 5d. in October, 1923, thereby bringing the working profit back to the pre-war standard, in some cases even higher than that. In November, 1923, the working profit was 10s. 9d. per ton, as compared with 9s. in 1914 and 9s. 6d. in 1913. The recent rise in the premium on gold, due to the fall of the English exchange on New York, will, of course, result in an increased working profit, unless a rise in working costs tends to partially offset the rise in the gold premium, which is not at all unlikely.

Future of Gold Industry.—At present (July, 1924) the gold-mining industry of South Africa is on a sound and profitable basis. During the year 1923, dividends to the amount of £8,500,000 (*i.e.*, about 13 per cent. of the issued capital) were distributed by the gold-mining companies. But what is the future of the gold industry? The future prosperity of the gold industry depends mainly on three factors :—

(1) *The practicability of mining at great depth.*—Mining engineers are of opinion that, on account of the great strength of the formation and the low rate of increase of temperature with depth, it will be physically possible to mine at a depth of 7,500 feet on the Western, Central and Near East Rand, and 5,000 feet on the Far Eastern Rand. Whether this will be economically possible, will depend mainly upon the working costs, which are again dependent, to a large extent, upon the supply and cost of labour. It has been estimated by the Chamber of Mines that, if the working costs are reduced to 19s. (now 20s.) per ton, the existing gold mines on the Rand will still yield about £600,000,000 of gold. According as working costs are lowered, larger and larger quantities of ore are transferred from the unpayable to the payable zone, and thereby lengthen the lives of the existing mines.

(2) *The extension of the reef in the eastern area of the Witwatersrand.*—The Far East Rand has recently assumed a very important position in the gold-mining industry. The Government engineers expect this area to yield a progressive output of gold, taking the place of the exhausted outcrop properties of the Central Rand and counteracting the diminishing output of a large group of mines which show a serious decline in value at depth. The Far East Rand contains the Main Reef series over about 247 square miles, and for 203 square miles of this area the reef lies at a depth of less than 5,000 feet. Some producing companies are already at work on this area, while others are in the course of development. The State owns about four-fifths of the undeveloped claims in this section of

the Rand and has adopted the policy of leasing them to such companies as come forward with the necessary capital. According to official estimates, the Far East Rand will be capable of yielding gold to the approximate value of £450,000,000.

(3) *The maintenance of the value or purchasing power of gold.*—The value of gold in terms of other commodities has already been subject to a decline, and may be subject to a further decline, on account of the limited demand for gold as currency or as the basis of currencies. During the World War most countries departed from the gold standard and have not yet returned to it. The most notable exception is the United States of America, to which country a large proportion of the world's supply of gold has gravitated, causing a gold inflation, *i.e.* a depreciation in the value of gold relative to other commodities. This has the effect, other things being equal, of keeping prices at a higher level than before the war, and consequently tends to prevent the working costs of the mines from falling to their pre-war level. The premium on gold refers to a rise in the value of gold relative to inconvertible paper money, such as the English or South African pound, the French or Belgian franc, the Italian lire, the German mark, etc., but it may at the same time be accompanied by a decline in the value of gold in terms of commodities. And this is of great significance to the gold mines as their consumption of commodities, either directly or indirectly through their employees, involves millions and millions of pounds per annum.

The maintenance of the purchasing power of gold depends largely upon (a) the return to the gold standard of those countries which have departed from it, (b) the drainage of gold to such countries as India and China, where gold is hoarded to a great extent, and (c) the industrial consumption of gold.¹² The prospects for the restoration of the gold standard in the near future do not appear to be very bright, in view of the considerable depreciation of many currencies and the propaganda in favour of regulated paper currencies; but the drainage of gold to British India has recently become an important factor. For example, during the week ended June 20th, 1923, £528,000 out of the £845,000 of gold exported from England was consigned to India; and during the whole of the year 1923 more than 3,500,000 ounces of gold (of a value of over £15,000,000) were shipped thither. Moreover, under the new agreement with the Bank of England, made in August, 1923, the mines are now able

¹² During the five years (1907-1911) the use of gold in industries and arts absorbed an average amount of £24,000,000 per annum—*i.e.*, more than one-fourth of the world's annual output of gold.

to ship gold to destinations other than the United Kingdom. This is rendered easier now that the mines can have their gold refined by the Rand Refinery, Ltd. A number of direct shipments have already been made to India, viz., 370,000 ounces (of a value of more than £1,500,000) from August to December, 1923 ; and there is every prospect that the volume of this business will expand, as the mines make a small additional profit by selling direct. This is probably the thin end of the wedge in connection with the marketing of our gold, as far as it is in our interest to do so, directly and independently.

CHAPTER 8.

MINING INDUSTRY (*continued*).

(2) *Diamond Mines*.—In contrast to gold, the first discovery of diamonds in South Africa was not the result of a careful and systematic search, but a purely fortuitous occurrence. It was in the neighbourhood of the village of Hopetown, on the Orange River, that the first diamond was discovered, in 1867, in the possession of a farmer by a travelling trader. Then the search began. By the end of 1869 several stones had been found in the vicinity of the confluence of the Orange, the Modder and the Vaal Rivers, but it was not until January, 1870, that the valuable deposits of alluvial diamonds on the banks of the Vaal at Barkly West were located. Within a few months 10,000 adventurous diggers, drawn from various parts of South Africa and the outside world, were at work on these alluvial diggings.

However, the mining of alluvial diamonds was destined to fall into comparative insignificance on the discovery of the great diamond pipes. In August, 1870, the Jagersfontein Mine in the Orange Free State was accidentally discovered, but this was overshadowed by the magnitude of the Kimberley deposits and abandoned for the time being. In September, 1870, the first of the Kimberley group of mines, the Dutoitspan Mine, was discovered, followed by the Bultfontein, De Beers and Kimberley Mines in the course of 1871. These four mines lay within a circle of $3\frac{1}{2}$ miles in diameter, in a barren and desolate region, hundreds of miles from the nearest railway or seaport. In spite of the privations and hardships to which the pioneer miners were exposed, in view of the fact that there was no regular communication, even by road, with the nearest settled districts and that water was scarce and the food supply uncertain, the diamond mines soon attracted a population of 50,000 white and coloured persons, who erected canvas tents or corrugated iron sheds.

Kimberley Diamondiferous Deposits.—The diamondiferous deposits at Kimberley are considered to be the vents and pipes of extinct volcanoes filled with mud, or “blue ground,” of igneous or eruptive origin. At first the miners had no clear conception of the real character of the diamond-bearing ground upon which they were working, and the general expectation was that within a few years

the deposits would be exhausted.¹ Claims were pegged, subject to certain restrictions, and surface diggings commenced. Many claims were abandoned as worked out when the "yellow" diamondiferous soil, which extended to a depth of about 60 feet and was then generally believed to be the limit of the diamond-bearing deposits, became exhausted and the "blue ground" was reached.

It was soon realised, however, that the blue ground was the real diamondiferous deposit, the colour being due to oxides of iron which, when exposed to atmospheric influences for a long period of time, became peroxidised and assume a yellow colour. The main supply of diamonds is not located in the vents which were excavated during the period of open mining or surface diggings, but in the oval columns of blue ground which penetrate to unknown depths. It was only after the lapse of some time that the supply of diamonds was known to be practically inexhaustible.

Initial Difficulties and Crises.—During the first twenty years of its existence (1870-90), the diamond-mining industry was beset with numerous difficulties. The first difficulty was the lack of adequate means of communication with other parts of the country or with other countries. It was only in 1885 that the railway from Cape Town to Kimberley was completed. Prior to that date all mining requisites, materials, and the necessities of life had to be conveyed to Kimberley by wagon.

The second difficulty was that, as the work of excavation proceeded, the flooding of the open workings by accumulations of drainage water and the downfall of the soft encasing rock became more and more serious. In 1874 the Kimberley Mining Board had been established to combat these evils, but it proved to be incapable of keeping the workings clear of water and fallen rock; and in 1883, after having spent more than half a million pounds without much success, it abandoned the task. In the meantime, as the mining operations had become more complicated and involved more expense, the individual miner or digger had been eliminated. As the excavations grew deeper and deeper, mechanical appliances and an ample supply of labour were required for the raising of the blue ground from the workings to the edge of the mines. This led to the inauguration of small companies, which were exploited to a dangerous degree by unscrupulous individuals posing as financiers.

In 1880-1 the majority of the individual ownerships of claims were converted into limited liability companies. This prepared the way

¹ As a result of this erroneous impression, Kimberley retained for years the appearance of a mining camp, with a mingled collection of canvas tents, tin shanties, and low wooden buildings, laid out with hardly any attempt at regularity.

for the important changes in the methods of diamond-mining which served to revolutionise the industry.

Subterranean Mining.—In 1883, as a result of the inability to deal with the removal of the fallen rock, the diamond industry was temporarily threatened with paralysis; but it was saved by the introduction of shaft-sinking and subterranean mining, which was devised by Gardner Williams, an American engineer. The new system was first adopted by the De Beers Mining Company, which had been founded in 1880, with a capital of £200,000. The results were very favourable, leading to an increased output and reduced working costs. Moreover, the formation of companies, with adequate capital and a large area of claims, had provided the means of using the new system to the best advantage.

Overproduction.—This state of affairs brought about the third difficulty with which the industry had to encounter before it was placed on a firm footing, viz., the danger of overproduction under the stress of competition and the consequent cheapening of the diamond, the value of which, for ostentatious purposes, depends largely upon its rarity. The adoption of the underground system had added considerably to the producing capacity of the mines and, accompanied by keen competition between the De Beers and the Kimberley Mines, brought about an overproduction of diamonds, resulting in a decline in the value of the carat from 27s. 3d. in 1882 to 18s. 5½d. in 1887.

De Beers Consolidated.—Of the four large diamond mines at Kimberley, the De Beers and the Kimberley Mines had become the leading ones. In the course of time these mines had come to be owned by a large number of companies and individuals, as originally the diamondiferous area of each mine had been marked out in claims which had been allocated to individual diggers from time to time, subject to the payment of licences, and subsequently acquired in large numbers by companies. In 1885, for example, the four mines were in the possession of 42 companies and 56 private firms. In the De Beers Mine the De Beers Mining Company, under Cecil Rhodes, had become the dominant factor, and in the Kimberley Mine the Kimberley Central Diamond Mining Company, which was again dominated by Barney Barnato.

Rhodes realised that control of production, with a view to limiting the quantity of diamonds placed on the market in accordance with the demand, was essential to the successful exploitation of the mines, and determined to bring about a general consolidation of mining interests. He first aimed at obtaining complete control of the De Beers Mine, which was achieved by May, 1887, and then set to work to obtain control of the Kimberley Mine by buying up

shares and securing a controlling interest in the Kimberley Central Company. Here he encountered the opposition of Barnato, who appeared on the market against him, and a financial duel for the mastery of the company ensued, driving up the price of the Kimberley Central shares to an abnormal level. But, with the assistance of Lord Rothschild and Alfred Beit, Rhodes won the contest and gained the supremacy in the Kimberley Mine. Thereupon, in 1888, the De Beers Mining Company was converted into the De Beers Consolidated Mines, Ltd., and by 1890 the Kimberley, Bultfontein and Dutoitspan Mines had been absorbed by this gigantic corporation. In that year a new mine, the Wesselton Mine, entered the field, but it was taken up by De Beers in 1891; and in recent years the Koffiefontein Mine in the Orange Free State, which had been opened as early as 1875, has also come under the control of the De Beers Consolidated.

Other Diamond Mines.—In this way the De Beers Consolidated succeeded in gaining complete control of the most important diamond field in the world, and, in its capacity as the world's largest producer² of diamonds, it has since the date of its inception exercised a steadying influence on the industry by its policy of restricting the output to the current requirements of the diamond market, as far as possible. But its task has been complicated and rendered more difficult by the opening of other diamond mines in South Africa. The Jagersfontein Mine in the Orange Free State, which was discovered as early as August, 1870, and opened in 1878, has been a consistent producer, the value of the output having been as high as £1,500,000 in 1910 and £1,600,000 in 1911, 1913 and 1920. In the O.F.S. there are also three small mines in the Boshof district, which were proclaimed between 1906 and 1912, but these are not of any significance. The Premier Diamond Mine, in the vicinity of Pretoria, Transvaal, which was opened in 1903, has become an important factor in the diamond industry of the Union. The value of its output has reached such figures as £2,700,000 in 1913 and £3,600,000 in 1920. These mines derived considerable benefit from the experience of the Kimberley Mines, and accordingly their development proceeded from the outset on sounder principles.

Alluvial Fields.—The alluvial fields on the Vaal River, which were the first point of attraction for the diamond diggers, have persisted up to the present day and contributed about one-tenth of the total diamond output of South Africa. Alluvial digging has been carried on at certain intervals along the Vaal River, from its

² In 1913 the value of the De Beers output was £5,800,000, and in 1920 about £7,000,000.

confluence with the Orange River to the proximity of the town of Klerksdorp, a distance of over 350 miles. The diggings of Griqualand West, on the Lower Vaal, have all along been the most consistent producer of diamonds. Amongst recent developments has come the discovery of a great alluvial field, extending almost continuously from the diggings on the Vaal at Bloemhof to those on the Hartz River in the vicinity of Schweizer Reneke. In 1919 an average of 4,300 Europeans and 14,500 coloured were engaged in alluvial operations throughout the Union, and the value of the output was £2,740,000 as compared with £1,120,000 in 1913.

Diamond Production of Union.—The value of the diamond production of the Union has been subject to considerable fluctuations, in view of the fact that the demand for diamonds, as luxuries and articles of display, largely depends upon the general prosperity of trade in the world, but more particularly in America, which buys the bulk of our diamonds. The following table shows the effect of trade depressions on the output of diamonds and the changes in the prices :—

Output of Diamonds in Union of South Africa, 1904-23.

Year.			Quantity.	Value.	Average Price per carat.
			Carats.	£	Shillings.
1904	..	..	3,683,157	7,208,645	39
1907	..	..	5,170,812	9,985,926	38½
1908	..	..	4,091,121	5,406,581	26
1909	..	..	5,169,871	7,199,359	28
1911	..	..	4,891,999	8,746,724	36
1913	..	..	5,163,547	11,389,807	44
1915	..	..	103,386	399,810	77
1917	..	..	2,902,417	7,713,810	53
1920	..	..	2,545,017	14,762,899	116
1921	..	..	806,643	3,103,448	77
1923	..	..	2,053,095	6,038,000	59

In 1908, on account of the financial crisis in the United States, there was a temporary depression in the diamond trade, the result of which was not only a restriction of the output but also a distinct fall in price. By 1911 the price had recovered, and in 1912 and in 1913 there was a boom in the diamond industry, consequent upon the general commercial prosperity in the world. Then came a severe depression, on the outbreak of the European War in August, 1914. The diamond mines were practically closed from September, 1914, until January, 1916, when the wave of prosperity in the United States caused the renewal of mining operations, and a rapid

recovery of the industry followed, reaching its highest point in 1920. The output was considerably less, but the enhanced prices of diamonds caused the value of the output to soar to the highest level yet reached. Then the effects of the world depression, which set in about the middle of 1920, came to be felt. In 1921 the demand for diamonds fell to such an extent that the output had to be reduced, and work on all the mines was curtailed accordingly. Since the beginning of 1923, however, a slight revival has come about in the diamond trade. In 1923 the value of the production of diamonds within the Union was £6,038,000 as compared with £2,267,000 in 1922 ; and at the last general meeting of shareholders in De Beers, held in November, 1923, it was announced that the Company had made a profit of £1,753,199, as compared with a loss of £602,588 in the previous year. As a result, however, of the unsettled conditions in Europe, which are by no means conducive to the restoration of prosperity, the demand for diamonds is not yet so substantial and steady as to warrant working the mines to their full capacity, some being only worked to a third of their capacity.

Future of Diamond Industry.—The future of the diamond industry depends mainly upon the control of production in accordance with the requirements of the market. The diamondiferous deposits at Kimberley, Pretoria and Jagersfontein are reported to be of such wide extent and great depth that there is no talk even of probable exhaustion during the next generation. Moreover, working costs are not of such significance as in the case of the gold industry, in view of the huge margin of profit in connection with diamond-mining operations on a large scale in our rich mines. The production of diamonds in the Union can easily be multiplied several times. It is the control of the output that is needed to preserve our diamond industry, and this has been rendered all the more difficult by the fact that new diamond mines and fields have been opened up in South-West Africa, the Congo, Angolaland and British Guiana.

Of all the outside producers, South-West Africa has hitherto been the most formidable competitor, but since the conclusion of the war and the administration of that territory by the Union, in its capacity as mandatory, an agreement has been made as to the quota of the output to be contributed by each of the four chief producers of South Africa, viz., De Beers, South-West Africa, the Premier and Jagersfontein. This great combination of diamond concerns produces the great bulk of the world's annual output and comes very near to having a world monopoly, so that the problem is largely one of internal control of production, which is now

facilitated by the agreement referred to. The function of controlling the marketing of the South African diamonds is performed by the Diamond Syndicate in London, a group of diamond merchants and financiers, including several directors of De Beers.

(3) *Coal Mines*.—Coal occurs in large quantities in all four Provinces of the Union, and was known and used by the aboriginal inhabitants of South Africa, probably in connection with the smelting of the iron from which they manufactured their primitive weapons and agricultural implements. In the Cape the coal is found actually out-cropping in some places, so that its existence must have been known from the early settlement of those districts. But, in the absence of transport facilities, such coal was used for local requirements only and not mined on any considerable scale, until the development of the diamond-mining industry at Kimberley created a demand for coal and the development of railway transportation brought it within the reach of the mines as well as the other centres of population, such as Cape Town, Port Elizabeth, and East London. For a long time large quantities of coal were annually imported from overseas, whereas to-day coal is exported.

Cape.—The first coal mines to undergo exploitation in South Africa were those at Cyphergat and Molteno in the Cape, which yielded an output of 21,000 tons in 1886. Soon afterwards wider and richer seams were discovered at Indwe, about 70 miles further east, which was connected by rail with the East London system, and became for a time the main source of the supply of coal to the diamond mines and the railways. In 1899 the output of these Cape mines was 209,000 tons, and in 1903 207,000 tons, but since that date the output has steadily declined, year by year, until in 1921 the total output of coal in the Cape Province was merely 5,800 tons. These mines were forced out of the market, yielding coal of a high ash and low volatile content, which resulted in a low calorific value and rendered it difficult to compete, except for purely local purposes, with the higher grade coal which was discovered and mined in the Transvaal and Natal.

Transvaal.—In the Transvaal there were also outcrops of coal, but the first impetus to the exploitation of the coal fields was afforded by the gold-mining industry of the Witwatersrand, which was only inaugurated in 1886. The first coal for the Rand mines was brought from Steenkool Spruit, a distance of about 60 miles, by wagon; but in 1887 coal was discovered at Boksburg, within easy reach of the gold mines, and collieries soon sprang up in that neighbourhood, including Springs and Brakpan. Following upon the discovery at Boksburg, large seams of good coal were opened up

in the Middelburg district, mainly at Witbank ; and, with the aid of good railway communication to Johannesburg, the Middelburg collieries now supply the bulk of the coal used by the gold mines. The coal output of the Transvaal advanced very rapidly, as gold-mining was extended, from 548,000 tons in 1893 to 1,908,000 in 1898, 3,013,000 in 1908, and 7,180,000 in 1920. At present the Transvaal mines yield about 60 per cent of the total output of the coal in the Union.

Natal.—In Natal, coal was not mined on a commercial basis until the late eighties. Although in Natal the industry has not made as rapid progress as in the Transvaal, the output has been subject to an almost continuous increase, from 29,000 tons in 1889 to 434,000 in 1898, 1,870,000 in 1908, and 3,526,000 in 1921. The collieries, 25 in number, are situated in the districts of Klip River, Newcastle, Utrecht and Vryheid. The bulk of the coal from these mines, which is the best in the Union, is shipped to Durban which is now a large coaling station and has a considerable bunker and export trade in coal.

Orange Free State.—The exploitation of the coal fields of the Orange Free State was commenced at a comparatively recent date. In 1904 the output was only 130,000 tons, rising to 610,000 in 1913 and 918,000 in 1921. The principal collieries are the Cornelia Colliery on the Vaal River opposite Vereeniging, and the Clydesdale Colliery, about fifteen miles to the south. The coal fields of the Orange Free State are of great extent, but the coal is only of second-grade quality.

Coal Output of Union.—In this way the coal output of the Union has been increased from 3,673,000 tons in 1904 to 8,478,000 in 1914 and 11,917,000 in 1923, as compared with 14,000,000 tons in Canada, 12,000,000 in Australia, 260,000,000 in the United Kingdom, and 550,000,000 in the United States. The value of the coal output of the Union in 1921, calculated at the pit's mouth price, was £5,072,000, while in 1923, owing to the fall in prices, it was £3,714,000 for a slightly larger quantity. The pit's mouth price varies considerably in the four Provinces,³ ranging from about 6s. per ton in the Orange Free State and Transvaal in 1921 to 15s. 8d. in the Cape, with an average of 8s. 11d. per ton, while in 1923 the average was 6s. 3d. per ton, which is one of the lowest in the world.

Conclusion.—The present output of about 11,000,000 tons per annum is small in comparison with the total coal resources of the

³ This is due largely to the geographical position of the collieries. Thus the Cape coal, which is the lowest grade in the Union, commands the highest price, because coal from the other provinces has to be transported by rail to the Cape, which enables the local coal to maintain its high price.

Union, which are reported to be of considerable extent and are of unusual economic significance to the industrial development of this country, in view of the fact that (1) it is not by any means a well-wooded country, (2) it is not endowed with any water power worthy of mention, and (3) it is situated far from any of the important coal fields of the world. The future production of our coal-mining industry depends upon the development of the demand for our coal, which now comes mainly from the mines, the railways, the ships, and the factories. The demand for coal will expand according as our railways and industries are further developed, or as the number of ships coaling at Union ports increases, or as the export of coal is promoted. During the last decade an export trade has been set on foot to such countries as the Argentine Republic, Mauritius, Madagascar, India, and the East and West Coasts of Africa, and it is probable that, under the new scheme of grading coal for export, our coal mines will be able to secure a wider market.

(4) *Copper Mines*.—From the earliest days of the occupation of the Cape there were vague reports concerning the discovery of copper in Namaqualand. As early as 1685 Simon van der Stel himself had undertaken an expedition to this district in order to verify those reports, and had succeeded in discovering a rich copper mine. Further discoveries were made by the expeditions of 1761 and 1792, but, on account of the barrenness of that region and the lack of transport facilities, the exploitation of the Namaqualand copper mines was not undertaken in earnest until 1852, when Messrs. Phillips and King commenced operations at Springbokfontein.

At first the production of copper progressed very slowly, due to the unfavourable situation of the mines, but, on the formation of companies with a good deal of capital, the industry advanced with rapid strides. The most important of these companies operating in Namaqualand were the Cape Copper Company, registered in 1863, and the Namaqua Copper Company, in 1887. During the period from 1863 to 1903 the output of the Namaqualand copper mines, which are the only copper mines in the Cape which have hitherto proved to be of any economic importance, was 1,155,000 tons of copper ore at a value of £12,645,000. The highest point was reached in 1907, when the value of the output was £602,000. Subsequently the output began to decline gradually, as the richer ores were being exhausted and ore of a lower grade had to be worked. By 1914 the margin of profit had become so low as to cause some anxiety. In view, however, of the enhanced price for copper in the earlier years of the war, the crisis was postponed and a brief period of prosperity set in, until the fall in the price of

copper in 1918 brought matters to a head. The Namaqua Company suspended productive operations in May, 1918, and the Cape Company in April, 1919. The former has recently resumed operations again, and the latter may be reconstructed. The future of the Namaqualand copper fields depends upon the introduction of more economic processes of treatment for the lower grade ores, of which enormous bodies still remain which are well over the grade worked profitably in America and elsewhere.

Copper also occurs in the Transvaal and Natal, but the deposits discovered in Natal have not proved to be worthy of commercial exploitation, and in the Transvaal the only producing concern is the Messina Copper Company, operating in the Zoutpansberg district since 1906. This company was severely hampered in its operations at first on account of the prevalence of malaria, but by means of stringent anti-malaria precautions this obstacle has been removed. The value of the Messina output of copper advanced from £27,000 in 1906 to £320,000 in 1914 and £663,000 in 1916, but in 1917 it commenced to decline due to the excessive rise in the working costs in that area, and with the fall in the price of copper in 1918 the decline was accelerated. In May, 1920, production was suspended until March, 1923, when the resumption of operations was rendered possible by the granting of certain concessions by the Union Government, who required copper in connection with their scheme for the electrification of the Pietermaritzburg-Glencoe railway. A new plant has been erected which will secure a higher extraction of copper from the ore and place the mine on a more profitable basis.

(5) *Tin Mines.*—Tin is mined in the Cape Province, in the neighbourhood of Kuils River (16 miles from Cape Town), where it was discovered towards the end of the 19th century but not exploited until 1902, and in the central or Bushveld area of the Transvaal, where it was discovered in 1904 and mining commenced soon afterwards. At Kuils River, where the broken character of the deposits has hitherto militated strongly against successful exploitation, tin-mining has been conducted on a very small scale, the total yield up to the end of 1921 being only £61,000; but in the Transvaal Bushveld it has been developed on a comparatively large scale, tin of a value of £4,513,000 having been produced up to December 31st, 1921. This area has become a constant producer of tin and, in view of the discovery of new properties from time to time, is expected to continue its average production of about £350,000 per annum for a long period, although during the last three years a fall in the price of tin had caused a decline in the output.

(6) *Iron*.—Iron deposits exist in many parts of the Union, and there are traces of such deposits having been worked by the aboriginal inhabitants; but it is only within recent years that serious attempts have been made to exploit iron deposits on a commercial scale. Valuable deposits of iron ore, in close proximity to coal of a satisfactory coking quality, have been brought to light in the vicinity of Pretoria. These deposits extend over a wide area and, according to Professor Stanley, are likely to assume an important rôle in our mining industry. The Pretoria Iron Mines have already commenced operations on a small scale, but difficulty is being experienced in securing sufficient capital for large-scale development.

(7) *Silver*.—A fair quantity of silver has always been gained from the gold bullion, of which it forms about 10 per cent. by weight. The value of our silver output has increased from £78,000 in 1906 to £106,000 in 1918 and £246,000 in 1920. Recently the old lead mines near Argent, known as the Transvaal Silver Mines and originally closed down in 1896, have been re-opened and will add considerably to the silver production.

(8) *Limestone*.—Limestone is mined in the Cape, the Transvaal, and the Orange Free State for the making of cement, building lime, or lime for chemical purposes. The output of lime in the Union has increased from 69,000 tons in 1915 to 113,000 in 1921, and the value from £110,000 to £255,000. At Taung, in Bechuanaland, an extensive deposit of pure white limestone, said to contain not less than 7,000,000 tons, is now being opened up and connected with the railway. This is of great significance as, up to the present, there has been no adequate and suitable supply of pure limestone, for metallurgical purposes, available in the Union.

(9) *Asbestos*.—Asbestos is mined at present in the Cape and the Transvaal, but it is also found in Natal, where the deposits are now attracting attention. In the Cape Province the Cape Asbestos Company has been at work in the Prieska and Hay districts since 1893, and more recently a large number of independent concerns have entered the field. In the Transvaal asbestos mines have been opened up in the Lydenburg district, and recently asbestos of very good quality has been discovered in the Barberton district, which is now being developed. The value of the output of asbestos in the Union has advanced from £36,000 in 1915 to £103,000 in 1921.

Other Minerals.—Various other minerals are also found in the Union and mined in small quantities, such as antimony, corundum, gypsum, talc, fluor-spar, lead, manganese, and zinc.

CHAPTER 9.

OTHER EXTRACTIVE INDUSTRIES.

(1) *Forestry*.—From the earliest days of the occupation of the Cape the products of the indigenous forests were in several ways of great importance to the country. In the initial stages of development the demands for wood were relatively simple, such being required mainly for building purposes, fuel, and the making of plain furniture, and the needs of the colonists were satisfactorily met from the forests found at the Cape. By the end of the 18th century, however, there were numerous complaints concerning the scarcity of firewood and timber, which was regarded as surprising by De Mist, in his memorandum of 1802, “as the Cape was originally thickly wooded.”

This scarcity of wood was attributed by De Mist to the fact that the colonists were accustomed to cut down the trees for dwellings and fires without replacing those trees by planting young ones. As the population had increased, the damage caused by this destructive custom had been enhanced. The result was great expense in order to secure firewood, and timber had to be transported by ox-wagon from the Swellendam forests. When these were exhausted, those of Plettenberg's Bay came into consideration, and these were likewise handled in an extravagant and destructive way and cut down by the colonists and their slaves.

With the diversification of industry, timber was demanded which complied more accurately with the specific requirements of particular industries as regards strength, hardness, toughness, weight, resistance to the action of moisture, colour, and texture. Each new industry brought its peculiar requirements. Thus, in the course of development the demand for timber became not only more intense but also more varied, whereas the available supply and variety of timber in South Africa were diminished from time to time by the careless exploitation of forests on a large scale, as well as by the ravages of forest fires in the absence of adequate preventive or protective measures.

However, although large areas of timber or scrub forests are known to have been destroyed by axe and fire within the past two centuries, there appears to be no reason to believe that South Africa was ever, as a whole, a heavily timbered country during the present geological period. The Union of South Africa is, as

compared with the United States of America and Canada, a very poorly timbered country.

The indigenous forests of the Union may be roughly classed as *dense timber forests* and *scrub forests*, the latter forming by far the larger proportion.

Scrub Forests.—The scrub forests cover extensive areas known variously as “Thorn Veld,” “Bush Veld” or “Middel Veld,” in addition to the “Low Veld” of Natal and Transvaal. Numerous species prevail in these forests, many of which yield timber of good quality, such as the Mimosa, Wild Olive, Camelthorn, African Teak, etc. The trees sometimes grow to a fairly large size, sufficient for sawing into timber, but over a considerable portion of the more accessible areas the mature timber has already disappeared. Generally speaking, the trees are of small size and slow growth, and their often scattered distribution does not render them suitable for economic forest management.

These trees, however, constitute an asset of great value for fuel, fence posts, and other local uses, as well as for shelter for cattle or sheep and protection against soil erosion. The land on which they are situated has mostly passed into private ownership or is located within native reserves. Unfortunately, the value of scrub forests is frequently not realised by the owners, and the destruction of the forests has proceeded ruthlessly in the past, being still continued to a large extent.

Timber Forests.—The timber forests are found only on the seaward slopes of the mountain ranges, usually within less than 100 miles from the coast, at widely scattered intervals from the Cape Peninsula in the south-west to the Zoutpansberg Mountains in the north-east. These forests seldom extend over any large continuous area, but are almost always found in isolated patches of from a few acres to a few thousand acres each, in the “kloofs” or ravines.

The area of the timber forests situated on the Government forest reserves forms by far the greater proportion of the total area of such forests in South Africa, and the great bulk of such forests are situated in the Cape Province.

The largest of the more or less continuous areas of forest are found, in the Cape Province, within a strip of country about 110 miles long and 10 miles broad between the Outeniqua Mountains and the sea, extending from George through Knysna to the Humansdorp District. It has been estimated that roughly 120,000 acres of this territory are occupied by forests. These have been heavily exploited during the last century or more, and the virgin timber is approaching exhaustion. The principal species composing these

forests are (a) yellow-wood, used for flooring boards and other building purposes, railway sleepers, joinery and furniture, naves for wagons, etc; and (h) black stinkwood, black ironwood and white pear for the making of wagons and furniture.

From George westwards to the Cape Peninsula, scarcely anything remains of the forests which were once found on the mountains, and which were exploited from the earliest days of colonisation. They were cut down or allowed to be destroyed by fire, and only small patches of forests remain in the more inaccessible kloofs.

In the Cedarberg Mountains, north of Cape Town, a distinct type of forest occurs, viz., that of the Clanwilliam Cedar. This species does not form a continuous forest, but the trees grow singly or in small groups, scattered on the rocky slopes and crags. The wood is, perhaps, the best of all South African timbers, being a durable light softwood, and the larger trees in all the more accessible parts have long ago disappeared before the axe. Since the area was made a forest reserve, measures have been taken to protect it from fire and to assist regeneration.

In the Eastern Conservancy of the Cape Province the timber forests occur chiefly on the Amatola and Pirie mountain ranges, but nowhere do they cover continuous areas of any great extent. These forests have been largely exploited in the past, and few of them still contain any considerable quantity of virgin timber. The more common varieties are the Sneezewood, a very durable timber and of great value for fence posts, and the Cape Boxwood, which is not much inferior to the European Boxwood.

In the Transkeian Territories (Cape) some extensive forests occur at intervals along the coast, the main species being the Sneezewood, Yellowwood, Cape Boxwood, and Cape Mahogany. Many of them, however, have been too inaccessible to allow of profitable utilisation.

The forests of Natal are now of small extent, the greater proportion of those which once existed having passed out of Government ownership or been included in native locations and largely deforested. In some of the coast forests there is a large proportion of Waterwood, a comparatively light and easily worked wood. Some of the Crown forests have been heavily exploited in the past, but there are still well-stocked forests of virgin timber, largely Yellowwood, in existence on the reserves in the south of Natal.

In the Transvaal the timber forests occur at widely scattered intervals on the Mountain ranges along the eastern edge of the plateau from the Natal border northwards, and are of small extent, with the exception of some comparatively large and continuous areas on the easterly slopes of the Woodbush Mountains and,

to a lesser extent, on the outlying Zoutpansberg Range, in the extreme north. With the exception of a few thousand acres of still virgin forest in parts of these ranges, the forests have all been heavily exploited in the past and little commercial timber remains.

In the Orange Free State there are only 1,400 acres of timber forest still in existence.

In many of the timber forests, particularly in those of the Eastern Province of the Cape, natural regeneration is very deficient, but in others, as in those of Knysna and the Transkeian Territories, it is more abundant. In the majority of the forests, when in virgin state, the proportion of trees of pole size was low, and when exploitation of the forests occurred in the past, little or no heed was given to the preservation of the young trees or to securing conditions favourable for natural reproduction. Moreover, the young growth in many of the forests was continuously destroyed by the natives for the sake of hut wattles, grazing and fires also contributing to the destruction. In addition, almost all the species of trees are of slow growth.

Relation of the State to Forestry.—As a result of the ruthless destruction of forests by axe or fire in a poorly timbered country, there was an acute shortage of wood for industrial purposes in South Africa at an early stage of its development, and timber of various kinds had to be imported from abroad. This was a very unsatisfactory and anomalous state of affairs for a young country, especially in view of the fact that forest products contribute in so many ways to economic progress. With the development of the building and engineering industry, the cart and wagon-making industry, the mining industry, the furniture industry, railways and harbours, railway carriage works, match factories, box-making industry, etc., the demand for wood was rendered more and more intense and varied, and the South African territories were liable to being deprived of the remaining forest resources and becoming almost entirely dependent on overseas countries for its increasing requirements of wood.

Accordingly, the State was obliged to intervene and undertake not only the preservation of the existing timber forests, but also the establishment of plantations with a view to providing the country with a new and more ample supply of timber. In 1876 a Department of Forests and Plantations was constituted in the Cape Colony, and in 1881 a Superintendent of Woods and Forests was appointed. In the Transvaal and the Orange Free State the Crown Colony Governments established Forest Departments as sub-divisions of the respective Departments of Agriculture in 1903. In Natal no settled policy was followed, the office of Conservator of Forests

having been twice instituted and abolished and the administration of the forests having been in the hands of the Director of Agriculture from 1908 to 1910.

On the establishment of the Union in 1910, the four colonial departments were immediately united under one Chief Conservator of Forests ; and in 1913 a Forest Act was passed, consolidating and amending the forest laws previously in force in the various provinces, and relating to forest tenure, forest reservation, demarcation, and the regulation and protection of forests.

In terms of the Union Act forest reserves consist of both demarcated and undemarcated reserves. On March 31st, 1921, the forest reserve areas comprised 1,693,000 acres demarcated and 521,000 acres undemarcated, representing a total of 2,214,000 acres.

Policy of Forest Department.—The policy of the Union Forest Department may be briefly characterised as follows :—

- (a) To protect and conserve the indigenous timber forests and to utilise their products in such a manner as not to impair but rather to increase their future productivity. Provision is made for protection from fire, including the formation of green fire-belts of wattles along the perimeters of the forests, and for artificial reproduction by means of planting exotic species within the forests where natural regeneration is lacking.
- (b) To increase the production of timber in the country by the formation and proper management of plantations of exotic species. Numerous species, yielding either the ordinary softwoods of commerce or durable softwoods of the cedar and cypress classes, or durable hardwoods such as some of the eucalyptus, are principally employed.
- (c) To encourage the general afforestation of the country by inducing farmers and others to plant trees for purposes of shelter, to provide wood for fuel, and for other local uses. With this object the Forest Department disposes of forest trees and seeds at very low prices. During the year 1920-21, 4,698,000 transplants were sold and otherwise disposed of from the Government nurseries, the majority being planted in the Transvaal and Orange Free State on the treeless high veld.

Extent of Plantations and Indigenous Forests.—The area of all Government and private plantations in the Union, according to the Agricultural Census of 1921, was estimated to be 558,700

acres, of which 288,400 acres were accounted for by the plantations of black wattle, 127,300 acres of gums, 61,500 acres of conifers (pines, firs, or cedars), 19,900 acres of poplars, and 61,600 acres of other species.

Only a few private plantations of any extent have been established with the object of producing mature saw timber, but fairly large areas have been planted by companies or private individuals with the object of producing mine-props. The most extensive private plantations, however, are those of black wattle for the production of tan bark, and the area of these in Natal, where the industry is centred, was estimated in 1921 to be approximately 220,000 out of a total of 288,000 acres for the Union.

The total area of all indigenous forests (timber or scrub) in the Union was placed at 7,491,500 acres, of which only 777,600 acres represented dense or true forests and 6,713,900 acres scrub or dwarf forests.

Forest Production.—In 1920-21 the Government forest reserves and plantations yielded about 2 million cubic feet of timber, 3½ million cubic feet of firewood, and 300,000 cubic feet of hut-wattles, fencing droppers, etc.

Private plantations yield a large proportion of the props used in the gold and other mines. A good deal of the wood annually cut in the wattle plantations is used for fuel, mine-props, etc., and a small quantity of it is converted into boxwood. Considerable quantities of wood from the scrub forests on private property are used for fuel, charcoal, fence posts, and other local requirements; and a small amount of wood in both scrub and timber forests on private land is converted into sawn timber for the making of carts, wagons, and furniture, for which purposes many of the South African woods are particularly suitable.

The total production from all the plantations and indigenous forests (exclusive of native reserves and locations) in the Union in 1920-21 is given in the following table.

Products from Plantations and Indigenous Forests (1920-21).

Product.	Plantations.	Forests.
Timber :		
For industrial purposes .. cub. ft. ..	999,400	858,900
For non-industrial purposes .. cub. ft. ..	1,548,400	1,061,725
Mine Props number ..	168,846	7,727
Wagon Wood cub. ft. ..	10,101	245,720
Railway Sleepers number ..	6,100	65,800
Fuel and Charcoal Wood wagonloads	103,229	158,457
Charcoal (manufactured).. .. lbs. ..	3,160,500	4,016,100

Imports of Timber.—During the three years prior to the World War, an average of 15 or 16 million cubic feet of unmanufactured wood were imported into the Union, of a value of over £1,000,000. During the war the imports of wood decreased considerably, declining to $5\frac{1}{2}$ million cubic feet in 1918, but after the conclusion of hostilities the imports rose again as high as 13 million cubic feet in 1920, of a value of £2,900,000 at the enhanced prices, declining to $6\frac{1}{2}$ million cubic feet in 1921 at a value of £1,300,000.

State Action.—Forestry is undertaken by the State in view of the great lack of timber wood in South Africa and the need of importing large quantities of timber required by various industries. The Government incurs a loss of about £50,000 per annum in connection with forestry, but it is amply justified by the fact that the supply of wood in the Union is increased in that way. It is highly desirable that forestry be extended, not only to provide South Africa with a larger supply and variety of wood, but also because forests play such an important rôle in the improvement of the climatic conditions of a country, the regular flow of rivers and the retention of moisture in the soil, all of which are of the utmost importance for the development of our agricultural and pastoral resources.

Other Forest Products.—There are several other forest products, such as : (a) *Wattle Bark* for tanning purposes. It is a well-established industry, with bright prospects of continued expansion, and has been developed by private enterprise, notably in Natal, where the overwhelming proportion of private wattle plantations are situated. In 1920-21 the production of wattle bark in the Union was 116,575,700 lbs. An important export trade in this article has been developed in recent years, mainly to Great Britain, Germany, Japan, United States, and Australia.

From 44,800 tons of a value of £195,000 in 1915 the export of wattle bark rose to 80,000 tons of a value of £457,000 in 1921.

(b) *Buchu*, which is used for medicinal purposes and consists of the dried leaves of shrubs which grow on the mountains of several of the south-western districts of the Cape Province. There is a good demand for this product in Europe and America, and a fairly large quantity is exported annually. In 1921 the export was 124,800 lbs., of a value of £21,000.

(c) *Berry Wax*, which is obtained from the berries growing on the coast sands in the vicinity of Cape Town. It is used locally for floor polish, and is also suitable for soap manufacture.

(2) *Fishing Industry.*—Although the fishing industry of the Cape has been in existence since the arrival of Van Riebeeck, it

is only within recent years that it has been developed to any great extent and that its possibilities have been realised. For more than two centuries the fisheries were largely neglected by the authorities and inhabitants alike and exploited to a limited extent only. This is to be attributed mainly to the fact that fishing was not regarded with favour by the Government, and was in general discountenanced by the more enterprising members of the community, until comparatively recent times.

Under the Dutch East India Company various obstacles had been placed in the way of the development of the fishing industry. The colonists were forbidden to establish fishing stations at any distance from Cape Town, on the ground that such would necessitate protection from headquarters. Fishing was, indeed, allowed at Saldanha Bay, but, as a royalty of 15 per cent. was levied on the proceeds, no one deemed it worth while to take advantage of the permission. Fishing was practically confined to Table Bay and False Bay and conducted on a very small scale only.

In the 19th century the development of the fisheries proceeded very gradually, and the consumption of fish was limited mainly to the coastal areas, in the absence of navigable waterways and adequate means of land transportation as well as river and enclosed water fisheries ; ¹ and even in the coastal regions the population was relatively small and advanced very slowly. A number of the liberated Malay slaves took recourse to fishing and became the nucleus of the fishing population of the Cape, which is to-day still composed chiefly of Malays. They used small open boats and fished almost exclusively by hook and hand line, and, to a limited extent, by seine nets in certain localities.

Within the last 40 or 50 years, owing partly to the increased white population and the consequent enhanced demand for fish and partly to the improved facilities of transportation and trade, more attention has been directed to the possibilities of developing the fisheries. Modern methods of fishing, such as long-line fishing and trawling, were attempted by private enterprise, but did not at first prove successful. The use of the long line was rendered difficult on account of the large number of dog-fish which infest South African waters ; and trawling was only resorted to on a large scale after extensive surveys and experiments had demonstrated that it was practicable in certain waters.

¹ The rivers of South Africa were remarkable for the poverty of their fish fauna. Trout carp and other fish have recently been introduced from overseas and established in many rivers, dams and enclosed waters in the Union. There is a growing demand for the ova and fry of trout and carp which are reared at the Government hatcheries.

In 1895 the attention of the Cape Government was drawn to the undeveloped state of the fisheries and the need for some action to be taken in the matter. An officer was appointed for the purpose of obtaining definite and reliable information as to the resources of the South African seas, and advising as to what steps should be taken to place the industry on a more satisfactory basis, both with regards to its development and its conservation. A steam trawler, specially designed for experimental work, was built, and a systematic investigation was undertaken, from which the conclusion was drawn that, while long line fishing and net fishing generally were not impracticable, the most promising line of development was that of trawling.

Though the West Coast proved to be unsuitable, some very large hauls of the trawl were made in False Bay, and, on proceeding to the Agulhas Bank, certain extensive areas were, after careful survey, found not only to be suitable for trawling, but also to afford phenomenal quantities of soles. These areas are now exploited with the aid of several steam trawlers.

The trawling area in False Bay, however, proved to be limited and somewhat patchy. Two small vessels, owned by private firms, commenced to exploit this area soon after the survey, but no very important progress was made. Further survey showed that other areas, on the East Coast near Bird Islands, were excellent trawling grounds, and several large modern trawlers are now landing fish from these areas. By 1913 the trawlers were delivering as much fish as the large number of Cape fishermen.

Owing to the lack of harbours in which large boats can find shelter, and to some extent to the apathy and conservatism of the native fishermen, there are no such large-decked sailing boats in use as are characteristic of the fishing industry of Europe. The construction of small fishing harbours is the next stage in the progress of the fishing industry, to allow of the use of decked sailing boats. Initial steps have already been taken in this direction, and the accomplishment of the desired object would probably mean the rise of a new and enterprising race of fishermen, and probably the improvement of certain branches of fishing at present neglected.

The fishing industry and its possible development cannot, however, be exactly on the same lines as in Europe, as the fish are in some degree different in kind and habit; but there is enough similarity to justify the conclusions, already partly proved, that there is a great opening for improved methods in the catching, curing, and distribution of fish on modern lines.

A beginning has already been made with the exportation of dried, pickled, and smoked fish, in fairly large quantities, to

Mauritius, Madagascar, Australia, etc.; and there is every likelihood that, with the improvement of methods, this can be appreciably extended in the future.

Moreover, the Union still annually imports fish to an amount of over £200,000, rising as high as £869,000 in 1920.

Statistics concerning Cape Fishing Industry.—In 1921, 764 sailing and rowing boats and 192 steam and motor boats were employed in the fishing industry of the Cape. In 1914 only 88 steam and motor boats had been in use, as compared with 192 in 1921, whereas the number of sailing and rowing boats declined from 874 to 764. In the latter year over 4,000 fishermen of all races were reported to be engaged in the industry, and the quantity of fish landed was estimated to be 38 million lbs., of a value of £336,000.

Natal Fisheries.—The Natal fisheries were also neglected, to a large extent, until recent years, but, as the result of Government investigations, the potentialities of the industry are more fully realised at present. Legislation was passed from an early date for the purpose of regulating and controlling the exploitation of the fisheries, although it was not until the beginning of the 20th century that the Natal Government undertook investigations with a view to promoting the development of the fishing industry. These preliminary investigations were followed up by more extensive inquiries, and in accordance with the recommendations of Government Inquiry Commissions in 1911 and 1914 the Natal Provincial Council passed the Natal Fisheries Ordinance in 1916, which, amongst other things, provided for the establishment of a Fisheries Board. In 1920 another commission was appointed by the Administrator to investigate and report on matters affecting the fishing industry in the Province.

The Natal fisheries, however, are much more limited in extent and scope than those of the Cape, and do not present the same possibilities of development as the Cape fishing grounds. In 1921 the Natal fisheries yielded about 3 million lbs. of fish, valued at £55,000, and about 600 fishermen were employed in the industry.

Crawfish Industry of Cape.—A species of crawfish occurs very abundantly in the colder waters of the West Coast, from Cape Point northwards. In recent years the crawfish industry has made considerable progress, owing mainly to the development of an extensive export trade to France. In 1920 there were 15 factories engaged in the canning of crawfish, each dealing on an average with more than a million crawfish, and canned crawfish to the amount of £224,000 and £171,000 was exported to France in 1920 and 1921 respectively.

(3) *Whaling Industry*.—Like the fishing industry, the whaling industry has only in recent times been developed on a fairly large scale, although it has been in existence since the days of Van Riebeeck. Shortly after his arrival, Van Riebeeck had reported to the Council of Seventeen that Table Bay seemed to be filled with whales, spouting in front of his quarters nearly every day and causing him to reflect with regret upon the loss which the Company was sustaining by his inability to secure their oil. In his opinion a substantial profit could be made out of whale oil. Accordingly, the Company reserved to itself the exclusive right of whaling at the Cape and established a whaling station; but throughout the period of the Company's rule, no serious attempt was made to develop the industry, only very small quantities of whale oil being obtained and exported to the Netherlands.

Under the administration of the Company, the colonists were not allowed to exploit the whale fisheries, but a number of English and American boats used to visit the waters in the vicinity of Saldanha and St. Helena Bays every year for the purpose of whale fishing, and managed to obtain large quantities of whale oil. In 1792-93 the Commissioners-General, during their investigations at the Cape, declared the whale fisheries open to the colonists, as they were convinced of the evil effects of the Company's monopoly; but for years there were still so many regulations and restrictive conditions that very little progress was made.

In the beginning of the 19th century the whaling industry was at one time in a flourishing condition, due to the abundance of whales in the bays and the high price of oil in England. In 1822 there were no less than seven whaling establishments at the Cape, viz., one at St. Helena Bay, two in Table Bay, three in Simon's Bay, and one in Algoa Bay. A few whalers had come out as settlers and taken recourse to whaling. But the industry declined in importance and extent when the price of whale oil fell to a low level and whales no longer frequented the bays in large numbers, as whaling was conducted merely by means of rowing boats in the bays and the fishermen were not sufficiently energetic and enterprising to fit out ships for whaling in the open sea, where they were to be found in abundance.

Accordingly, the whaling industry was neglected almost entirely from the second quarter of the 19th century, and was revived only in recent years when a number of Norwegians and Portuguese settled in the Colony and formed the nucleus of a new whaling population.

As a result of considerable improvements in the method of capturing whales and in their subsequent treatment, the development of the industry proceeded fairly rapidly after its revival at

the Cape. Since 1908 whaling has also been undertaken in the Natal waters. Saldanha Bay is the seat of the whaling industry in the Cape Province, and in Natal the industry has been established in the vicinity of Durban.

The table on the following page shows the extent of the whaling industry of the Cape and Natal :—

Whaling Industry of the Cape and Natal (1916 and 1920).

Year.			No. of Whales Captured.	Value of Catch.	No. of Persons Employed.	Export of Whale Oil.
				£		£
1916	..	..	1,778	219,000	1,120	123,000 (1913)
1920	..	..	1,378	432,500	804 236 European 568 Coloured	233,000

Besides whale oil the whaling industry also puts forth such products as fertilisers (known as whale meat and bone meal), whalebone and whale finners.

(4) *Sealing Industry.*—The Dutch East India Company had also reserved for itself a monopoly of the sealing industry, and sealing stations were established by Van Riebeeck on Robben and Dassen Islands. Small quantities of seal skins and seal oil were exported, from time to time, from the Cape to the Netherlands. In 1793 the Commissioners-General broke down the monopoly of the Company and declared sealing open to all the inhabitants of the colony, which was also allowed under British rule. But as there is not much scope for the development of the sealing industry, it has never assumed large proportions. In 1822 it was reported that, on an average, about 8,000 seal skins were annually exported from the Cape.

At present the sealing industry is largely in the hands of the Union Government and is undertaken in conjunction with the exploitation of the guano deposits on the Government islands, islets, rocks and reefs along the South African coast. Private enterprise is permitted only on certain specified islands and rocks set aside for that purpose. The number of seal skins and the quantity of oil secured annually vary considerably according to circumstances. The average number of skins taken during the 3 years prior to 1915 was 5,600 per annum, and during the 3 years from 1919 to 1921 the average number was 9,600. These skins are shipped to England and sold by auction on the London markets.

In 1919-20 an amount of £193,500 was realised from the sales in London of seal skins secured from the Government Islands. The price had advanced from an average of 37s. 6d. per skin in January, 1918, to 71s. in October, 1919, and £22 per skin in January, 1920, as the result of foreign competition engineered with a view to capturing the seal-skin trade. Generally, however, the proceeds from the sale of seal skins amount to about £10,000 per annum. Seal oil is produced in negligible quantities only.

(5) *Guano Industry*.—The Government Guano Islands, which comprise all the principal islands, islets, rocks and reefs along the South African coast, were formerly leased to various private individuals, but were ultimately in 1889, by resolution of the Cape Parliament, taken over as the several leases lapsed, and worked for the Government by an agent upon a commission basis only until 1898, when the guano business was converted into a Government enterprise under the control of the Superintendent of the Guano Islands. On the establishment of the Union in 1910 the Office of the Guano Islands became a sub-division of the Union Department of Agriculture.

The guano is deposited on the islands by the young sea birds during the breeding season, which lasts from about the beginning of September to the end of March. The collection of the guano is undertaken immediately after the breeding season, and as the various crops are collected, dried, cleaned, and rendered available for use, they are shipped to Cape Town for disposal as required. As the annual yield of guano is regulated principally by the supply of fish on the coast, such being the only food of the birds, and is also very much affected by the climatic conditions prevailing during the breeding season, the total quantity collected varies from year to year. During the 5 or 6 years prior to 1918 the average yield from all sources was 7,000 tons per annum, but since that time it has been about 9,000 tons.

Guano is sold in a pulverised form, and is used mainly in the cultivation of cereals and vegetables. Its principal chemical constituents are nitrogen, potash, phosphoric oxide, and lime. The main object aimed at, in the working of the Guano Islands as a Government undertaking, is to assist the farmers in procuring a first-class fertiliser at reasonable cost, and thus the guano is sold at a price fixed by the Government below its commercial value. Prior to the War the price of Government guano was £5 per ton. In 1915 it was raised to £7 10s. and in 1917 to £10 per ton, with a view to meeting the increased cost of production and also placing some check upon the great scramble for the product at the relatively

low figure for that time of high prices. The price has now been reduced to £7 per ton.

The guano business has proved to be a profitable enterprise for the Union Government, yielding a substantial net profit every year of from £10,000 to £40,000 per annum.

(6) *Salt Industry*.—No deposits of rock salt are known to occur, but in the Cape, the Orange Free State and the Transvaal a large quantity of rough salt has, since the earliest days of their occupation, been obtained from the liquor of salt pans. These pans are shallow basin-shaped depressions, often of several square miles in extent; in the surface of the more arid districts. They are without outlet and retain the inflow of water received in the rainy season, with the result that in many cases an excellent supply of brine remains available close to the surface.

Such pans are exploited now in practically every case where the brine is found to be of suitable quality and reasonable transport facilities are available. The great bulk of the salt is obtained entirely by solar evaporation in shallow dams, although, in one or two cases, artificial heat has been adopted for final precipitation of the concentrated liquor.

The Union is now almost self-supporting in this commodity, but new demands are likely to arise, and there will doubtless be considerable further expansion in the salt industry.

In 1920-21 the total production of salt in the Union was 68,000 tons, of a value of £163,000. The Cape Province yielded 38,000 out of the 68,000 tons, obtained principally from the Uitenhage, Port Elizabeth, Cradock, Malmesbury and Herbert salt pans.

CHAPTER 10.

MANUFACTURING INDUSTRY.¹

The Cape under the Dutch East India Company (1652-1795).—During the period of the Company's rule there was hardly any manufacturing industry at the Cape, with the exception of (a) a few subsidiary industrial establishments, such as flour mills and saw mills (driven by water or wind), wagonmakers' workshops, tanneries, bakeries, and a brewery, and (b) a few minor handicrafts, such as carpentry, cabinet-making, ropemaking, bricklaying, plastering, and iron-forging. These were conducted on a relatively small scale and mostly by means of primitive methods.

The Company had consistently opposed all branches of industry involving special processes in preparing the raw material or in manufacturing the finished article. Not even the roughest fabrics were permitted to be made at the Cape from the raw wool obtainable. The Fiscals had always been most strongly opposed to any suggestion for the establishment of manufacturing institutions and the admission of the more important handicrafts, on the ground that it would be detrimental to the Company's factories in Holland.

The Cape under British Rule.—When the Cape became subject to British rule in 1795, England was still to a large extent under the influence of "mercantilism," in accordance with which the colonies were to supply the mother country with foodstuffs and raw materials and take in return from the mother country the manufactured articles which they required.

The mercantilists laid considerable emphasis on the importance of the manufacturing industry to the mother country, for two reasons. In the first place, the manufacturing industry afforded employment to a larger population than the extractive industries, and a large population was considered highly desirable for the purpose of national defence. And secondly, manufactures embodied a much higher value, in proportion to their bulk, than agricul-

¹ The manufacturing industry is here interpreted in the broad sense and taken to comprise all such industries and handicrafts as create "form" utilities—i.e., utilities resulting from the transformation of raw materials into semi-manufactured or manufactured articles, whether by mechanical power or manual labour with the aid of tools and implements. It includes repairing as well as manufacturing establishments.

tural and pastoral products, and consequently placed the mother country in a better position to secure a favourable balance of trade, which would again enable the mother country to obtain an abundant supply of the precious metals and so acquire the means of enriching the nation as a whole.

This mercantilistic colonial policy of Great Britain was indeed modified from time to time, after the loss of the American colonies in 1783, but for many years the colonies were still largely exploited for the benefit of the mother country. In fairness to Great Britain, however, it must be stated here that her colonial policy was much more liberal than that of the other colonising states of the time. With a view to protecting the manufacturing interests of the mother country, various measures were taken to prevent the colonies from undertaking manufacturing on any considerable scale. Thus, in the first half of the 19th century, when the Cape was governed from England with little regard for local representation, manufacturing was not, in the strict sense at any rate, prohibited in the Cape Colony, but in a variety of ways obstacles were placed in the way of an extensive development of that industry. For example, under the guidance of Imperial legislation the tariff was framed for revenue purposes only, and the same duties were imposed on raw materials, semi-manufactured articles and other manufacturing requisites as on finished commodities.

Accordingly, it was merely the handicrafts and the subsidiary branches of the manufacturing industry which could be developed at the Cape, to any noteworthy extent, as long as the Colony was under the control of the Imperial Government. The only manufacturing industries of any importance in 1872, when responsible government was granted to the Cape, were the milling, baking, building, cart and wagon-making, wine and brandy-distilling, candle-making, fruit-preserving, fish-preserving, brewing, blubber-boiling, boat-building and tanning industries. Many of these industries had grown up under the customs tariff in spite of the fact that it had not been designed to foster the growth of local industries, but merely to serve as a source of revenue. The tariff was the most important source of revenue in the Colony, and as the need for revenue had increased, the customs duties had been raised, until they proved to be high enough to afford a fair measure of incidental encouragement and protection² to subsidiary industries. But the staple manufacturing industries of England, such as the iron and steel, woollen and cotton, chemical, engineering and shipbuilding industries, were hardly, if at all, known

² It must also be borne in mind that colonial industries enjoyed a natural protection in the form of freight, insurance and dock charges.

in Cape Colony at the time. No provision had ever been made in the tariff for the express purpose of promoting the establishment of any of these staple industries, and the incidental protection afforded by the revenue tariff was not sufficient to set the movement on foot.

When the Cape acquired complete fiscal autonomy in 1872, under the system of responsible government, no advantage was taken of the opportunity at her disposal of fostering the growth of local manufacturing industries by means of high protective duties, as Canada had done ; and in view of the rise of the mining industry, there was now no real necessity for any such action. Any country may secure its supply of manufactures either by devoting a portion of its labour and capital to their production at home, or by exporting the products of its extractive industries in exchange for manufactures ; and it will ordinarily adopt the method which appears to yield the largest return of manufactured commodities for the labour and capital expended in production. It is clear, then, as Professor Callender says, that anything which affects favourably or unfavourably a country's foreign trade will influence its choice of the method of securing its supply of manufactures. Whatever increases the demand of other countries for its extractive products will increase its ability to obtain its manufactures cheaply by trade. Beginning in the seventies, the keen foreign demand for the diamonds, wool, hides and skins, mohair and ostrich feathers of the Cape gave that Colony such an increased purchasing power abroad, and widened the scope of agriculture, stock farming and mining as profitable enterprises to such an extent, that there was practically no inducement for the development of staple manufacturing industries. The attention of the Colony was directed by the circumstances of the time to the exploitation of the extractive industries.

However, in view of the need for additional revenue as the Colony advanced, the customs duties were further raised from time to time. In 1864 the *ad valorem* duty had been raised from $7\frac{1}{2}$ to 10 per cent., and in 1884 to $11\frac{1}{2}$ per cent. on some articles and 15 per cent. on others. Moreover, a large number of specific duties had been increased occasionally. As a result of this, the subsidiary manufacturing industries, which were of much importance to the development of the extractive industries and for which there was consequently a demand, enjoyed greater protection and were considerably extended from the eighties onwards.

By 1891, according to the census returns of that year, there were about 2,000 industrial establishments and artisans' shops of all kinds in Cape Colony, affording employment to 15,900 males and 2,800 females. Only 327 establishments used steam or gas

engines aggregating 4,800 horse power. The value of machinery and plant was reported to be £1,030,000, and of buildings and improvements £1,179,000. The value of the raw materials used amounted to £3,353,000, and of the manufactured articles £5,639,000. Thus, the value added in the process of manufacture was about £2,300,000.

There were 262 flour mills and 106 bread and biscuit works ; there were many cart and wagon-making establishments at Paarl, Worcester, Oudtshoorn, Grahamstown and Kingwilliamstown, the output being about 3,000 wagons, 4,000 carts and 450 other vehicles ; the railway workshops and depôts, including the engineering and locomotive departments, afforded employment to about 2,500 persons ; the wool-washing, fell-mongering and tanning industries yielded a production of nearly £1,000,000 ; and there were various confectionery and jam factories, breweries, saw mills, furniture works, tobacco, cigar and snuff factories, distilleries, tin and plumbers' workshops and iron foundries, brick and pottery works, match factories, printing, book-binding and engraving establishments, and a blanket factory (at Waverley, near Ceres).

As far as the manufacturing industry was concerned, the Cape was far ahead of Natal, Transvaal and the Orange Free State, where, likewise, it was merely the handicrafts and subsidiary manufacturing industries which were developed to any appreciable extent.

Natal.—In Natal there was less opportunity than in the Cape for the development of the manufacturing industry. As the nearest gateway from the south-east coast to various parts of the interior, along a healthy line of communication, Natal was the main emporium for the trade with the two republics and the native territories. With a view to promoting this inland trade, increasing the revenue from customs duties, and furnishing a wider field of employment in transport, by wagon or rail, Natal consistently followed a policy of levying lower duties on imported goods than those imposed in the Cape. In other words, trade and transportation were regarded as being of more importance than the manufacturing industry.

However, the incidental protection afforded by the low revenue duties, plus freight and insurance, was sufficient to induce the establishment of several industries. As early as 1854 the wagon-making industry had been established at Pietermaritzburg by James Merryweather. Various other industrial institutions, such as sugar refineries, bakeries, flour mills, saw mills, tanneries, etc.,

were also undertaken, but not by any means to the same extent as in the Cape. It was only after 1898, when Natal for the first time entered a customs union with the Cape and adopted somewhat higher customs duties, that manufacturing began to make substantial progress.

Transvaal.—Prior to 1881 the Transvaal Government had never aimed at fostering the growth of local manufacturing industries. It was almost entirely an agricultural and pastoral country, with a few mining enterprises, and the customs duties were very low indeed. In that year, however, the need for revenue induced the Government to impose an *ad valorem* duty of 5 per cent. on all imports, and additional specific duties on certain articles of luxury. By 1888 these duties, when taken in conjunction with the fact that duties had already been levied at the Cape or Natal ports and that the cost of transportation by ox-wagon was very high, had become high enough to afford protection to several industries.

Moreover, in 1882 the Republican Government had definitely adopted the policy of encouraging the establishment of new industries, either by means of high protective duties on certain articles, such as dynamite, cement, biscuits, cake, confectionery, cheese, lard and tobacco, or by means of concessions for the exploitation of certain industries. Some of these concessions, such as the right of manufacturing spirituous liquors, conferred a monopoly upon the concessionaires, while others were subject to certain conditions which the Government might impose or relax at its discretion, or cancel altogether, as it did at one time in regard to the concession for the manufacture of dynamite and other explosives. There were also concessions for the manufacture of cement, bricks, tiles, matches, porcelain, sugar, powder, gas, woollen goods, oils, etc. These industries were further assisted by the provision that machinery for factories was to be admitted free of duty, whereas mining machinery was subject to a duty of 5 per cent.

By these artificial means many of these industries were firmly established in the Transvaal and have survived until the present day.

Orange Free State.—In the Orange Free State no attempt was ever made by the Republican Government to use the customs tariff as a means of promoting the development of manufactures. Prior to 1889 the customs duties were exceptionally low and were levied entirely for the purpose of revenue; but, as duties were also levied at the Cape and Natal ports on goods destined for the Orange Free State, and as there was a great deal of natural protection in the cost of transportation by ocean steamer, railway

and ox-wagon, a few subsidiary branches of the manufacturing industry were able to gain a firm footing in the larger towns.

In 1889 the Orange Free State entered into a customs union with the Cape Colony, in accordance with which the former did not levy duties on goods imported through the latter but received a share of the duties collected at the Cape ports, and the same duties were levied on goods imported into the Orange Free State through Natal as were current in the Cape. Some of the duties of this customs union were fairly high and did indeed serve as a sort of inducement for the extension of the existing industries, but in general there was no noteworthy industrial development. The Orange Free State seemed to be satisfied with the agricultural and pastoral industries, supplemented by a few mining and manufacturing enterprises. At the end of the 19th century the Orange Free State was in a very backward state in regard to manufactures, even in comparison with the Cape, Transvaal and Natal.

In the nineties a movement had been set on foot in the Orange Free State to foster the growth of manufacturing industries by means of bounties or subsidies. In 1896, for example, a motion was introduced in the Volksraad and accepted, authorising the Government to grant subsidies for the manufacture of beet-sugar. The State was to guarantee a net profit of 6 per cent. If the profit did not amount to that, the Government was to pay the balance, provided the amount did not exceed £1,500 during the first three years, £1,000 during the following three years, and £500 for the four years subsequent to that. This was followed in 1897 and 1898 by two other motions, both of which were carried in the Volksraad, the one authorising the grant of an annual subsidy of £5,000, during the first three years, to any company or individual undertaking the establishment and operation of a woollen mill, and the other authorising the Government to take steps to promote the establishment of tanneries. But before any tangible results could be accomplished, the Anglo-Boer War broke out in 1899 and the movement was nipped in the bud.

Recent Industrial Development in South Africa.—Since the Boer War, and more particularly since the outbreak of the World War, a remarkable development of the manufacturing industry has taken place in South Africa. Although the statistics contained in the following table are not all on a strictly comparable basis, in view of differences in the methods of enumeration and in the definitions of industrial establishments to be enumerated, it will serve as a striking illustration of the industrial development of the Union since 1914.

Gross Value of Manufactures in South Africa.³

Year.	Cape.	Natal.	Transvaal.	O.F.S.	Total for Union.
	£	£	£	£	£
1904 ..	9,040,579	3,744,088	6,471,082	274,738	19,530,487
1911 ..	7 431,727	4,434,562	4,633,436	749,109	17,248,834
1915-16 ..	14,616,427	9,665,505	14,266,643	1,886,307	40,434,882
1918-19 ..	25,544,312	15,796,411	26,373,345	3,220,030	70,934,098
1920-21 ..	35,231,715	23,790,541	34,646,876	4,638,778	98,307,910
1921-22 ..	28,301,757	18,519,810	28,674,085	3,950,647	79,446,299

No definite and detailed conclusions can be drawn from the statistics for 1904 and 1911, in view of the fact that they are to a large extent based on different methods and procedures, and that in general the scope of the inquiry was wider in 1904 than in 1911. In the case of Natal and the Orange Free State the figures for 1911 show an increase of industrial activity as compared with 1904, whereas in the Cape and the Transvaal a decrease is shown, which appears to be most improbable when it is taken into consideration that, in the Cape, there are still more than 700 manufacturing institutions in operation which had been established between 1900 and 1909, and in the Transvaal more than 500, as compared with 240 and 100 in Natal and the Orange Free State respectively.

However, some general conclusions may be deduced from the statistical data of the censuses of 1904 and 1911. In the first place,

³ In connection with the manufacturing industry, the first statistical data for the four territories now comprised within the Union of South Africa were obtained at the population census of 1904, and again at the first population census of the Union in 1911. These data were rendered by manufacturing and repairing establishments whose annual production amounted in value to £100 or more, but it appears that in the census of 1904 the returns included—in some cases, at any rate—figures relating to commerce as well as manufacturing; and no attempt has ever been made to reconcile the results of the census of 1911 with those for 1904.

The statistical data for the year 1915-16 were obtained at the first census of manufacturing industries, which was undertaken under the Statistics Act in 1917 and formed the first special inquiry of the kind in the Union. Since that date annual industrial censuses have been taken in the form of specialised inquiries on a basis which will admit of close comparisons being made. The only important change that has been made is that, for 1915-16, the scope of the inquiry was directed to the inclusion of all manufacturing and repairing establishments within the Union employing four or more persons, or utilising any form of mechanical motive power, whereas for 1916-17 and all subsequent years the scope has been extended to cover establishments employing three or more hands, or utilising any form of mechanical power or boilers for steam-heating purposes. Thus, at present, the definition of a factory for the purposes of the census includes workshops employing three persons, even if no mechanical power is used, and those employing only one or two persons if there is mechanical power.

they demonstrate clearly that, in the first decade of the 20th century, the Cape was still far in advance of the other territories in manufacturing, and that the Orange Free State had hardly turned her attention to this industry. Secondly, it is quite clear that, prior to 1911, the manufacturing industry of South Africa had made relatively slow progress. In that year the gross value of manufactures in South Africa was reported to be only about £17,000,000, in contrast to the mineral production of £46,000,000. But, during the period from 1900 to 1911, the way was prepared for the industrial development which was to follow, although the foregoing table does not serve to illustrate the point, for reasons already mentioned. For example, between 1900 and 1904 no less than 900 new industrial establishments had been set in motion, and between 1904 and 1911 about 1,400. Most of these were small institutions, indeed, but their inauguration is indicative of the tendency of the time.

The main reason for this comparatively slow growth of the manufacturing industry, prior to 1911, is to be found in the sensational development of the mining industry since 1870.⁴ The rise of the mining industry in South Africa, from small beginnings in 1870 to a position of exceptional significance in our economic organisation in 1911, considerably widened the field of employment not only by creating a direct demand for labour in mining operations, but also by extending the scope of agriculture, stock farming and trade as the result of the presence of a mining population and the existence of a wider local market for agricultural, pastoral and other produce. The amount paid out in wages and stores soon ran into millions and millions of pounds sterling per annum. It also attracted a large amount of capital and claimed the attention of the State, capitalists, and men of unusual administrative and technical ability. It set a high standard of profits and wages, and thereby rendered it difficult for manufacturing institutions to secure the requisite capital and labour at low cost. Moreover, it furnished valuable articles of export which enabled the country to purchase its manufactures abroad.

As the mining industry was developed and expanded, the field of employment was further widened and the scope of farming and commerce further extended, so that there was little inducement to venture on manufacturing enterprises, especially in the absence

⁴ Prior to 1870 the development of manufacturing had proceeded very slowly, partly because obstacles were placed in its way or no encouragement was given by the authorities, and partly because the conditions were unfavourable for extensive manufacturing on account of the small white population and the lack of capital.

of definitely protective duties. A large number of subsidiary branches of the manufacturing industry did come into existence, as already stated, either under the stimulus of the mining industry or of the revenue and semi-protective duties, or both. Most of these were conducted on a relatively small scale, but, as the development of the mining industry began to slacken in 1908 or thereabouts and did not keep pace with the growth of population and the expansion of farming occupations, the tendency towards manufacturing on a somewhat larger scale began to manifest itself. Whereas formerly the mining, agricultural, pastoral and other extractive industries had absorbed almost all the available capital and energy, more attention was now being turned toward the exploitation of the manufacturing industry. Between 1910 and 1914 over 1,600 new factories were established, and representations were made to the Union Government with a view to securing high protective duties on a large number of articles. The Customs Tariff Act of 1914 did make provision for certain protective and semi-protective duties, but not to the same extent as was requested by the manufacturers.

However, although a beginning had been made and the way had been prepared for manufacturing on a larger scale, it was not until after the outbreak of the World War, which threw South Africa on its own resources, that the more important branches of the manufacturing industry were undertaken, and that manufacturing establishments came to be operated on a fairly large scale.

Influence of World War (1914-18).—The World War gave an abnormal stimulus to manufacturing in South Africa. Several factors combined to bring about this favourable state of affairs, so far as local industries were concerned. In the first place, the Union was virtually forced into manufacturing by reason of its inability to import all the manufactured articles which it required, since the nations of Europe were involved in a tremendous conflict and America was manufacturing supplies for the belligerents. Local manufacturers were strengthened by the diminution of foreign competition and the considerable rise in prices in Europe. Secondly, the natural protection, which our industries always enjoy as a result of our being situated thousands of miles from Europe and America, was considerably increased by the rise in freight, insurance and other import charges. And finally, the customs duties were raised in several instances for the sake of providing an increased revenue to cover the increased expenditure, but also had the incidental effect of enhancing the protection enjoyed by manufacturing enterprises.

Moreover, greater attention was given to industries in the Department of Mines and Industries. In 1916 an Industries Advisory Board was appointed, consisting mainly of business men and designed to advise the Minister in regard to the industrial development of the Union. The necessity for scientific methods of research and management in regard to industrial development was also recognised, and after negotiations with representatives of the various scientific societies throughout the Union, a Scientific and Technical Committee was created in 1917. In October, 1918, this Committee and the Industries Advisory Board were amalgamated under the title of the Advisory Board of Industry and Science. A Division of Industries was created and developed under advice of the latter Board. In 1917 the South African Federation of Industries had also been formed, and a beginning had been made with the publication of the official monthly Journal of Industries.

The result of the combined operation of all these factors was that, with the outbreak of the European War in 1914, the Union of South Africa entered an era of unprecedented industrial development. The number of factories and of factory employees increased very rapidly, and the value of the factory production advanced by leaps and bounds. From £17,000,000 in 1911 the gross value of the manufactures rose to £40,000,000 in 1915-16 and £98,000,000 in 1920-21, declining to £74,000,000 in 1922-23 in consequence of the depression and the general fall in prices; or taking the value calculated at 1910 prices according to the index numbers for wholesale prices, it advanced from £33,000,000 in 1915-16 to £52,000,000 in 1920-21, an increase of 57 per cent. in five years.

Value added in Process of Manufacture.—The real extent and significance of the manufacturing industry are to be ascertained more particularly from the value added in the process of manufacture, *i.e.* by deducting from the gross value of the output of the factories the cost of materials used.

Year.	Value added in process of manufacture.		
	£		
1915-16	..	..	18,119,000
1918-19	..	..	29,914,000
1920-21	..	..	40,343,000
1922-23	..	..	37,343,000

There was thus an increase of over 100 per cent. in the net value of our factory production during those seven years.

Value of Materials used in Factories.—The following table shows (1) the total value of materials used in the factories, and (2) the value of South African materials used :—

Value of Materials used in Factories.

Year.	Total Value of Materials.	Value of S.A. Materials.	Percentage of Total Value.
	£	£	%
1915-16	22,316,000	10,025,000	45
1918-19	41,020,000	21,845,000	53
1920-21	57,965,000	26,452,000	45½
1922-23	37,134,000	16,517,000	44½

South African materials are used principally in the manufacture of articles of food, drinks, and tobacco products. For example, in 1920-21 no less than £21,281,000 out of the £26,452,000 of South African materials was involved in the manufacture of those articles ; and imported materials to the value of only £5,688,000 were used in connection therewith. Also, with regard to the manufacture of leather and leatherware, local materials accounted for £1,161,000 out of a total of £1,530,410. But in connection with the metal and engineering trades (including mine, railway and tramway workshops), the great bulk of the requisite materials were imported from abroad, viz., £10,796,000 out of £11,132,000. This was also the case with (a) the building and contracting trades, £4,098,000 out of £4,376,000, (b) the chemical industry, £3,358,000 out of £4,535,000, (c) the printing and publishing trades, £1,558,000 out of £1,567,000, (d) the wood-working industry, £1,098,000 out of £1,561,000, and (e) the textile industry, comprising mainly tailoring establishments, £1,706,000 out of £1,785,000.

At first sight it seems rather surprising that in a country like the Union of South Africa, which is known to the outside world as an exporter of mineral products, raw materials and foodstuffs, the manufacturing industry is dependent upon foreign countries for the supply of more than 50 per cent. of the materials required in the process of manufacture ; but it must be borne in mind that, in its initial stages especially in a new country, the manufacturing industry is usually dependent to a large extent upon semi-manufactured materials imported from abroad. Accordingly, most of the imported materials used in our manufacturing industry are semi-manufactured materials, such as metals (iron and steel, brass and copper, tin, zinc and lead), textile goods (woollen, cotton, linen, canvas, etc.), wood, paper, glycerine, nitrates, leather (calf-skin), wax, etc.

Textile Industry.—Wool and cotton are exported from the Union and cloth imported for tailoring purposes. A beginning has already been made with the manufacture of woollen blankets on a fairly large scale, and attempts have also been made to manufacture cloth, but not to any great extent. The two leading woollen factories at present are the South African Woollen Mills, Ltd., of Woodstock, Cape, and the National Wool Industries of South Africa, Ltd., of Harrismith, O.F.S. The latter is a large and well-equipped woollen factory and was only opened in 1923; and the former company is erecting a new mill at Mowbray, which, when completed, will have capacity for employing a thousand hands. There is a great deal of scope for the manufacture of the low and medium-grade products of the textile industry, which has really just been started. During the years from 1910 to 1918 the average annual importation of textile goods amounted to £12,000,000, and in 1921 to £14,639,000.

Iron and Steel Industry.—Moreover, iron and steel are imported to the value of about £1,500,000 per annum for manufacturing or repairing purposes, and the average annual importation of metal manufactures (other than machinery) amounted to £2,500,000 during the four years prior to 1914, and £4,000,000 in 1921. In the vicinity of Pretoria iron ore of a high grade is found in close proximity to coal of a satisfactory coking quality, which is a factor of great economic importance; but practically nothing has been done to exploit these valuable iron deposits, although the South African Iron and Steel Corporation of Pretoria intends to undertake the task as soon as the necessary capital is secured. Negotiations are in progress for the amalgamation of the South African Iron and Steel Corporation of Pretoria, the Union Steel Corporation of Vereeniging, and the Iron and Steel Works at Newcastle, Natal, which is expected to render it easier to attract the large amount of capital required to operate the iron and steel industry on a fairly extensive scale. Hitherto these iron concerns have been merely engaged in the smelting of scrap-iron and the making of finished bars and steel castings on a relatively small scale.

With a view to encouraging the development of the iron and steel industry in South Africa, provision has now been made for the payment of bounties in respect of pig-iron and steel produced in the Union from ores mined in the Union. These bounties, ranging from 15s. per ton of pig-iron or steel produced in the years 1924-27 to 2s. 6d. in 1931-32, are to be paid only if the plant is capable of producing at least 50,000 tons of pig-iron or steel per annum.

Other Imported Materials.—With regard to some of the other imported materials, such as wood, paper, calfskin leather, wax, glucose, etc., attempts are being made to render the Union independent of other countries as far as possible. For example, the Government undertakes afforestation on a large scale with a view to ultimately rendering the country self-supporting in respect of timber for industrial purposes. Paper mills have already been established such as the Premier Paper Mills, of Klip River, Transvaal, but the output represents merely a drop in the bucket. Owing to the demand for calfskin leather for the better grades of boots and shoes, in recent years, an increasing quantity of such leather is being prepared in our tanneries. Maize by-products of all kinds are being manufactured on a fairly large scale at Germiston; and negotiations are now being carried on with a view to starting a Maize By-Product Company at Frankfort, O.F.S., for the manufacture of such maize by-products as glucose, starch, edible oil, gluten feed, etc.

Principal Manufacturing Industries.—The following table shows the extent of the operations of our principal manufacturing industries in 1922-23 :—

Principal Manufacturing Industries in Union of South Africa (1922-23).

Branch of Industry.	Gross Value of Manufactures.	Net Value of Manufactures.	No. of Establishments.	No. of Employees.
	£	£	No.	No.
(1) Food Products, Drinks and Tobacco Products	23,830,000	8,262,000	1,875	30,000
(2) Metals, Engineering, Blacksmithing, etc.	13,238,000	7,307,000	856	37,000
(3) Building and Contracting	7,800,000	4,265,000	711	29,000
(4) Chemicals, etc. ..	5,534,000	2,372,000	123	9,000
(5) Heat, Light & Power	5,464,000	4,323,000	252	11,000
(6) Printing, Binding, Engraving, etc. ..	3,821,000	2,748,000	312	7,000
(7) Textiles, Tailoring, etc.	2,848,000	1,518,000	807	9,000
(8) Wood-working, Sawing, etc.	1,866,000	890,000	260	5,200
(9) Bricks, Pottery, Cement, Lime, etc...	2,303,000	1,879,000	334	13,000
(10) Leather and Leatherware	2,546,000	1,134,000	241	6,500
(11) Cart and Wagon-Making, Cycle and Motor-Repairing, etc. ..	1,593,000	985,000	813	6,000
(12) Furniture, Upholstery, etc.	1,386,000	713,000	205	3,500

Thus the four leading groups of manufacturing industries of the Union, according to the method of classification adopted in connection with the industrial census, are :—

- (1) The manufacture of flour, bread, biscuits, cake, confectionery, jams, preserved fruit, preserved fish, preserved meat, ham and bacon, butter and cheese, sugar, mineral water, beer, wine, brandy, spirits, pipe tobacco, roll tobacco, cigarettes, cigars, snuff, etc. The main centre of this group is the Cape Peninsula, which yields about one-fourth of the total production of such articles.
- (2) The operation of engineering works, steel works, tin or copper or iron-smelting establishments, mine or tramway or railway workshops, blacksmithing and plumbing establishments, wire works, gate and fence-making concerns, galvanised iron works, brass and copper works, etc. The principal centre of this group of industries is the Witwatersrand, which accounts for more than one-third of the gross value of the production in the Union, and one-half of the net value.
- (3) The construction of buildings, irrigation works, harbour works, waterworks, railways, roads, streets, bridges, sewerages, etc. The Witwatersrand is the main centre of such works and accounts for about one-third of the total value of construction work in the Union.
- (4) The manufacture of explosives, fertilisers, soap, candles, matches, paints, varnishes, disinfectants, tanning extract, carbonic acid gas, oil, grease, glue, etc. Durban yields about one-third of the gross value of the output in the Union, followed by the Cape Peninsula and the Witwatersrand, but of the net value the Cape Peninsula yields more than one-third, and Durban and the Witwatersrand between 25 and 30 per cent. each.

Principal Industrial Centres of the Union.—The principal industrial centres of the Union are the Witwatersrand, the Cape Peninsula, Durban, and Port Elizabeth.

Principal Industrial Centres of Union, 1921-22.

Centre.	Gross Value of Manufactures.	Net Value of Manufactures.	Number of Establishments
	£	£	No.
Witwatersrand	26,081,000	13,848,000	1,763
Cape Peninsula	16,709,000	7,450,000	1,148
Durban	11,928,000	4,572,000	540
Port Elizabeth	2,999,000	1,342,000	214

Nature of Organisation.—Of the 7,005 industrial establishments in operation in 1920-21, 3,819 were carried on by individuals, 1,533 by registered companies, 1,293 by partnerships, 22 by co-operative societies, and the remaining 338 by the Government, municipalities, institutions, etc.

Further Statistics of Industrial Development since 1915.—The following table contains further statistics illustrating the unprecedented development of manufacturing in South Africa since 1915 :—

Year.	Number of Industrial Establishments.	Number of Employees.			Amount of Wages.
		European.	Coloured.	Total.	
					£
1915-16 ..	3,998	39,524	61,654	101,178	8,912,857
1918-19 ..	5,968	53,598	89,490	143,088	14,475,648
1920-21 ..	7,005	62,962	116,857	179,819	21,906,089
1922-23 ..	7,027	61,286	110,732	172,018	19,184,000

Conclusion.—The recent industrial development of the Union of South Africa has been achieved, not as the result of any definite and carefully-contrived policy of protecting and fostering the growth of local industries as in the United States and Canada, since the tariff policy of South African Governments has all along fluctuated between free trade and protection with a large revenue in view, but under the stimulus of the considerable incidental protection afforded by war conditions and abnormal post-war conditions.

During the period of 12 years between the close of the Boer War and the outbreak of the Great European War the way had been prepared for industrial development. The soil had been rendered fertile for the growth of the manufacturing industry, and the seeds had been sown, but no considerable harvest could be reaped without an artificial stimulus, and that stimulus was provided not so much by State action as by the exigencies incident to the Great War.

The industrial possibilities of South Africa have been clearly demonstrated by the development which has taken place since 1914. The economic conditions had become favourable for manufacturing prior to the War already, in view of the fact that the mining industry had been practically developed up to its highest point and had become more or less a stationary factor in our economic organisation, with the result that a larger supply of labour, capital

and business ability was rendered available for manufacturing. But some sort of assistance was needed in order to enable the more important branches of the manufacturing industry to gain a firm footing in the face of keen foreign competition. The War gave a good deal of assistance, and the result was the extension of the existing industries and the rise of new industries. The boot and shoe industry, with Port Elizabeth as its centre, is a striking illustration of this movement.

Since 1920, however, foreign competition has returned with all its vigour and has even been accentuated, in many cases, by the dumping of post-war surpluses of foreign goods on our markets, as a result of which several of the industrial concerns that had sprung up like mushrooms during the war were weeded out. Those which have survived the ordeal are fairly sound and healthy, and are making good progress again, although for a time they had been seriously affected by the depression. Many establishments had been compelled by circumstances to curtail their operations, while some even had to close down altogether for a certain period. But, according to the index numbers for industrial activity issued by the Department of Census and Statistics, the manufacturing industry was in a much more satisfactory position in 1923 than in the preceding year.

Thus, the industrial progress which had been interrupted by the depression is now being continued again, and the rate of such progress will depend largely upon the extent to which the Union Government will adapt its tariff policy to the requirements of industrial development. The Union of South Africa has now arrived at the stage where the Government is obliged by circumstances to formulate a systematic tariff policy, in accordance with which a clear distinction is to be made between duties which are levied primarily for the purpose of revenue and those levied primarily for the sake of protection. A careful investigation is to be made with a view to ascertaining which industries are likely, with the assistance of protection, to become ultimately self-supporting on account of having such advantages as cheap raw materials, cheap power, or an extensive market in the Union or other territories of Africa south of the equator (Rhodesia, Bechuanaland, Basutoland, Swaziland, South-West Africa, East Africa, Central Africa, etc.), or Madagascar, Mauritius, Argentine, etc.; and protective duties or bounties are to be introduced with a view to fostering the growth of such industries, since some sort of artificial assistance is almost always needed to tide new industries over the initial stages in such countries as the Union, where the surpluses of British, German or

American manufactures are dumped periodically, in many cases with the intention of breaking new industries.

The main justification for the encouragement, by State action, of the manufacturing industry in South Africa lies in the fact that the extractive industries have not proved to be capable of furnishing an adequate livelihood to all the European inhabitants. This is again due primarily to the fact that :

- (1) numerous natural obstacles and disabilities render agriculture and stock farming in general less certain and profitable than in almost any other country, and consequently narrow the scope of such enterprises considerably, especially for the less intelligent, industrious, ambitious and resourceful ;
- (2) the agricultural, pastoral and mining industries are based almost entirely on low-paid coloured labour, whereby the field of employment of unskilled white labour is contracted to such an extent that a large number of permanently unemployed Europeans have come into existence ;
- (3) considerable difficulty has been experienced in finding adequate foreign markets for our surplus agricultural and pastoral produce.

The result of this has been that a marked drift has taken place, in recent years, from the rural districts to the urban centres which, however, likewise do not offer sufficient scope for employment. While the reorganisation of our system of rural education and the conquest of new markets overseas will undoubtedly widen the scope of the agricultural and pastoral industries, and ought on that account to be eagerly undertaken and promoted by the State and the agricultural organisations, yet the development of the manufacturing industry will still be needed in order to provide a greater diversification of occupations and absorb those who, for various reasons, cannot find suitable employment elsewhere. At the same time, the growth of the manufacturing population will widen the local market for agricultural and pastoral produce, and thereby again enlarge the scope of agriculture and stock farming, which is of all the more importance when it is taken into consideration that the gold-mining industry has reached its height and is expected to commence its decline within ten years.

The requisite industrial development is, it appears, to be secured primarily by means of protective duties, bounties and improved industrial education, and the burden imposed upon the community by such duties is to be regarded as a temporary sacrifice for a

permanent future gain. But, in view of the fact that the agricultural, pastoral and mining industries will, in many cases, be adversely affected by a substantial rise in working costs, protection is to be administered with caution, discrimination and moderation, with a view to minimising the disadvantageous effects of protection in some directions and deriving the maximum benefit from its stimulus in others. For this purpose the organisation of the Board of Trade and Industries is to be improved and extended, so as to enable it to perform that difficult but necessary task as efficiently and economically as possible, *i.e.* with the least indirect loss to the community and the greatest direct gain.

CHAPTER 11.

TARIFF LEGISLATION.¹

The Cape under the Dutch East India Company.—The first regular tariff of customs duties levied at the Cape was introduced in 1678, when duties were imposed upon all articles brought into the Colony by the ships' crews and offered there for private sale. The Company had not been successful in exercising a complete monopoly of the trade of the Colony, and accordingly introduced import duties on such non-company goods as were landed at the Cape. The Fiscal was permitted to levy these duties for his own benefit. This was also the case with the fees which were levied by the Fiscal on all produce sold to foreign ships.

This state of affairs continued till 1789, when a duty of 5 per cent. was imposed upon all goods imported or exported, except by the Company, and the duty was henceforth to be levied for the benefit of the Company and not of the Fiscal. But the latter continued to collect the money as if it was a perquisite of his office. In 1793, however, the Commissioners-General reiterated the imposition of the duty of 5 per cent. on imports and exports, besides introducing a duty of 10 rds. on every slave imported into the Colony, and ordered the revenue to be paid into the general treasury.

The Cape under British Protection (1795-1803).—When the Cape came under the control of Great Britain in 1795, British colonial policy was in the course of undergoing an important change. The loss of the American colonies had thoroughly discredited the old colonial policy of England, which had aimed at the monopolisation of the trade with the colonies and the exclusion of foreign ships and traders. The new policy, which was only gradually coming into the foreground, did not seek to prohibit the colonies from trading with foreign countries, but favoured a system of reciprocal preferential duties for the protection of British trade and shipping. British goods imported into the colonies were to be admitted free of duty, while foreign goods were taxed, or, where British imports had to be taxed in the colonies for purposes of revenue, foreign articles were to be subject to higher duties. On the other hand, by way of

¹ In connection with this chapter the author is heavily indebted to Dr. A. J. Bruwer's thesis on "Protection in South Africa" (Juta & Co., Cape Town).

reciprocity, some colonial products were admitted into the mother country under lower duties ² than those of foreign countries.

At first, during the years 1795-97, under the Acting-Governorship of General Craig, foreign ships were not allowed to land any goods at the Cape, except by special permission under stress of circumstances, when a duty of 10 per cent. *ad valorem* was levied, whereas the cargoes of English ships were admitted without restraint, subject merely to the old 5 per cent. duty. The export duty of 5 per cent., which had been introduced by the Dutch East India Company in 1789, was also retained. But from 1797, when Earl McCartney assumed the Governorship of the Cape, the ports of the Cape were declared open to the ships of foreign countries at amity with Great Britain, and an elaborate system of differential duties in favour of British goods and ships was instituted with a view to protecting British trade and shipping between the Colony and the outside world, not only against foreign countries but also the other colonies.

The Cape under the Batavian Republic (1803-6).—When the Cape was restored to the Netherlands (known as the Batavian Republic at the time) in 1803, the existing regulations were removed, and the colonists were granted the right of unrestricted trade with the possessions of the Batavian Republic, subject only to a duty of 3 per cent. on all articles of commerce.

The Cape as a British Colony without Representative Government (1806-54).—After the second and permanent British occupation of the Cape, in 1806, the external trade of the Cape was regularly controlled from England by Orders-in-Council, which had the force of law, until the institution of representative government in 1854. The policy of preferential duties in favour of British trade and shipping, and in some cases even of prohibitive restrictions on foreign trade and shipping, was brought into practice again and rigorously enforced during the remaining period of the Napoleonic Wars (1806-15). Subsequently a more liberal policy was followed, but the preferential duties remained in force at the Cape in more or less rigorous form until 1855, when, in accord with the prevailing ideas of free trade and navigation in England, they were abolished by the Customs Tariff Act of that year, and provision was made for the treatment of British, colonial, or foreign trade and shipping on an equal basis.

During this period, when the Cape was administered from England with little or no regard for local representation, the trade

² It must be borne in mind that, under the influence of mercantilism, England had a comprehensive protective tariff at the time, and could therefore grant reductions of duties to her colonies.

of the Colony was minutely regulated by Orders-in-Council, *i.e.* orders issued to the Cape Governors by the Imperial Government. For the sake of uniformity within the Empire, the Imperial Government was to determine the commercial policy of the Empire at large and to prescribe to the colonies such rules as were necessary for carrying that policy into effect. These rules and regulations were frequently altered, to the obvious inconvenience and detriment of the Colony. The trade regulations were not always strictly enforced, many exceptions and concessions being made from time to time, but the frequency with which they were changed proved to be a source of annoyance to the colonists.

Although numerous alterations were made in the regulations during the 48 years, the main aim of England's commercial policy was the same throughout, *viz.*, the protection of British shipping and British trade with the Cape. With this end in view, the following principles were adopted and put into practice in various ways :—

- (1) Higher duties on foreign goods than on British goods on their importation into the Colony ;
- (2) preferential treatment of British shipping by the imposition of higher duties on goods brought to the Cape by foreign ships than by British ships ;
- (3) lower duties on some colonial goods than on similar foreign goods when imported into Great Britain ;
- (4) privileges granted to the chartered British East India Company.

Preferential Treatment of British Goods and Ships.—For example, in 1806, British goods imported in British ships were rendered liable to a duty of 3 per cent., whereas foreign goods brought in British ships and British goods brought in foreign ships were subject to a duty of 7 per cent., and foreign goods imported in foreign ships had to pay 10 per cent. These duties were changed from time to time, and from 1807 to 1813 British goods brought in British ships were even admitted free of duty, but this type of preferential treatment was retained, in its essential features, throughout this period, which may be divided into three phases according to the rigidity or laxity of the trade restrictions on foreign countries.

The first phase covers the years from 1806 to 1815 and was marked, to an appreciable extent, by a policy of restriction and exclusion. At first foreign ships were allowed to trade with the Cape, subject to higher duties than British ships, but in 1811, "in consequence of the number of foreign ships employed in the trade," foreign ships were excluded from the Colony, and trade

to and from the Cape was restricted to British ships, the only exception made being that foreign ships could import provisions under special licence. In 1814 the scope of this restriction was somewhat contracted by the provision of further exceptions, but in general it remained in force until 1820.

The second phase includes the years from 1815 to 1832, when more liberal regulations were introduced. In 1820 foreign ships were allowed to import into the Colony all articles except foreign manufactures of iron, steel, wool, or cotton, but they were excluded from the export of Cape produce unless equal privileges were granted to British possessions by the country of origin. The preferential duties were continued in more or less the same form, with the exception of foreign articles landed from British ships which, by proclamation of 1829, were rendered subject to the duty of 10 per cent. levied on foreign articles imported in foreign ships. In other words, the discrimination against foreign ships was removed, so far as the import trade was concerned.

The third phase commences with the Order-in-Council of 1832, which abolished all the existing restrictive enactments relative to the trade of the Cape and introduced a more simple and effective system of differential duties. Goods from Great Britain and British colonial possessions, except the East Indies, were to pay a duty of 3 per cent., whereas foreign goods and the produce of the East Indies were liable to a duty of 10 per cent. By this measure goods from the colonial possessions were placed, for the first time, on an equal footing with goods from the United Kingdom. The only exception was the East Indies, and that was made as a concession to the English East India Company for the protection of its trade and shipping. Moreover, the ports of the Cape were thrown open to foreign ships, both as regards the import and the export trade, subject to no burdensome conditions. However, in spite of the more favourable conditions for foreign ships, British ships succeeded in retaining the great bulk of the carrying trade of the Cape. For example, for the year ended January 5th, 1850, British ships carried £900,000 of the imports into the Colony, and foreign ships only £87,000.

The differential import duties were retained at the Cape, with certain modifications, such as (a) the introduction, in 1840, of specific instead of *ad valorem* differential duties in the case of liquor, coffee, sugar, etc., and (b) the increase, by Order-in-Council of 1842, of the *ad valorem* duty on British goods from 3 per cent. to 5 per cent. and on foreign goods from 10 to 12 per cent. for the sake of revenue, until the Customs Tariff Act of the Cape Parliament in 1855 abolished the entire system of preferential or differ-

ential duties. All goods and ships, from whatever country in the world, were to be treated in the ports of the Cape on exactly the same basis.

The abolition of imperial preference was the result of a significant change in the commercial policy of Great Britain. In 1820 a public movement against the protective system of England had been set on foot by the London merchants and supported by the manufacturing classes. England had become more and more a manufacturing country and found that the import duties on foodstuffs and raw materials were highly detrimental to her manufacturing and commercial interests. The movement was also supported by such prominent statesmen and politicians as Huskisson, Cobden and Peel. By 1846 Sir Robert Peel, the Prime Minister at the time, had secured the repeal of the Corn Laws and the abolition or reduction of a large number of duties on foodstuffs, raw materials, and manufactures. Free trade became an acknowledged principle in England, and the last mercantilistic tendencies in British commercial policy in the form of restrictions on trade and navigation were removed. Great Britain now definitely abandoned the old policy of colonial economy and colonial trade and started a new policy of world economy, world trade and world markets, and in carrying out this policy found it necessary to dispose of all differential duties in existence within the Empire.

Accordingly, in 1854 Imperial legislation was passed, abolishing the differential duties in the colonies in favour of the mother country. In that year also representative government came into effect at the Cape, but the Colonial Office retained control of the tariff policy of the Cape for the time being, and the Customs Tariff Act of 1855 was passed by the first Cape Parliament in entire accord with the ideas then prevailing in England. A very simple tariff was framed, in which no preferential duties appeared. Duties were imposed for the purpose of revenue only and were divided into specific and *ad valorem* duties, the former applying to such articles as spirits (3s. per gallon), wine (2s. 6d. per gallon), sugar (3s. 6d. per cwt.), etc., and a general *ad valorem* duty of 7½ per cent being levied on all goods not enumerated in the schedule.

Protection of Cape Produce.—Prior to this date the tariff had been used primarily for the dual purpose of yielding revenue and protecting British trade with the Cape, and the numerous alterations in the tariff during the period from 1806 to 1855 were made with a view to attaining that dual purpose. In only a few cases, such as grain and wine, did the tariff also serve to protect local industries. In 1826 a duty of 8d. per bag of 200 lbs. was imposed upon all imported wheat, and 2s. per barrel of 182 lbs. of flour, with the dual

purpose of yielding revenue and protecting the grain farmers of the Cape.

The wine farmer was not only protected by means of high import duties at the Cape, but also by the preferential treatment of Cape wines in the English market. Wine was the product of the Cape which was selected for preferential treatment in England, as in the case of West Indian sugar and Canadian grain. It was the trade privilege granted to the Cape by England in return for the differential duties in the Colony in favour of the mother country. In 1813 the Cape wines were admitted into England at one-third the duty on Portuguese and Spanish wines, but in 1825 the duty on foreign wines was reduced and in 1831 the duty on Cape wines was raised, thereby narrowing the margin in favour of Cape wines and bringing about a decline in the Colony's export trade in wine. However, although substantially reduced, this preferential treatment of Cape wines on importation into England was continued until 1860 when it was abolished by Gladstone.

Tariff Policy of the Cape (1855-89).—As already stated, the Cape Customs Tariff Act of 1855 introduced a tariff free of any discriminations and preferences and containing duties for the purpose of revenue only. The Cape now acquired a large measure of fiscal autonomy, under the Imperial Customs Act of 1857, in terms of which the colonies obtained the right of making entire provision for the management and regulation of their customs tariffs, trade and navigation, subject to the limitation that no differential duties were to be imposed within the Empire. In 1872, when responsible government was granted to the Cape, the Colony acquired still greater financial freedom, but did not take advantage of the opportunity at her disposal of fostering the growth of local industries by means of high protective duties, as Canada had done.

At the Cape the tariff was not used for the express purpose of promoting the establishment of new industries or protecting existing industries, with the possible exception of wheat farming, as virtually no manufacturing was done in the Colony and as the attention of the country was directed by the circumstances of the time to the exploitation of the extractive industries, mainly agriculture, stock farming, and mining, all of which, with the above exception, were developed independent of protective tariffs.

The tariff was used primarily as a source of revenue, and was in fact the most important source of revenue in the Colony. As the need for revenue increased, the customs duties were raised. In general, the tariff fluctuated almost inversely with the prosperity of the Colony. In a time of depression, when a decrease in the

imports brought about a reduction in the revenue from customs duties, the tariff was raised to provide for the shrinkage; and in periods of prosperity the duties were lowered again or left unaltered so as to provide for a surplus. In view of the need for additional revenue, however, as the Colony advanced, the general tendency was upward. In 1864 the *ad valorem* duty was raised from $7\frac{1}{2}$ to 10 per cent., and in 1884 to $11\frac{1}{2}$ per cent. on some articles and 15 per cent. on others. This latter duty was later reduced to 12 per cent., and in some cases to 10 per cent. Moreover, a large number of specific duties had been introduced from time to time and increased in accordance with the need for revenue.

Although the tariff was never enacted with the distinct purpose of fostering the growth of local industries, the import duties were in later years found to be high enough for the development of certain industries, such as the cart- and wagonmaking industry. Thus, the manufacturing industry came to be developed on a small scale under the comparatively high revenue duties, and once several branches of manufacturing had been established, the demand for protection arose. This can be traced back to the eighties, when the Bond Party appeared on the scene, having as one of its principles "that agriculture, stock farming, commerce and industries be aided by all legislative means . . . by a circumspect and judiciously-applied system of protection."

Tariff Policies of Natal, Transvaal, and Orange Free State.—In the meantime new political units had come into existence in South Africa, viz., the British Colony of Natal and the Republics of the Transvaal and the Orange Free State. This led to the inauguration of divergent and competitive tariff policies, giving rise to negotiations and conferences which finally culminated in the formation of the South African Customs Union in 1903.

In *Natal*, after the British occupation in 1843, a vacillating and uncertain tariff policy was followed until, in 1846, an Order-in-Council was issued by the Imperial Government for the regulation of the trade and shipping to and from Port Natal (Durban). Henceforth Natal was subjected to the same tariff, except a few provisions, as in force at the Cape at the time, with its differential duties in favour of British trade. For a time certain conditions were also imposed on foreign ships. Natal had thus likewise had her share of British mercantilism before the abolition of all preferential duties and restrictions on trade and navigation in 1855.

After the introduction of representative government in 1856, Natal developed her own tariff policy which had a dual purpose in view, viz., to obtain revenue for defraying the expenses of administration of the Colony and to promote the "overberg" trade, *i.e.*

the trade with the two Republics in the interior, on the other side of the Drakensberg range of mountains. Beginning in 1867, Natal followed a policy of levying lower duties on imported goods than those imposed in the Cape Colony, in order to be able to compete more favourably with the latter in the trade with the interior.

Moreover, as in the Cape, the tariff was made to serve as the principal source of revenue, and no duties were levied for the purpose of protecting local industries, but, along with insurance, freight, and other import charges, the *ad valorem* duty of 6 per cent. was sufficient to give a fair measure of incidental protection to some industries.

In the *Transvaal* and the *Orange Free State* also, the tariff was enacted from the outset primarily with a view to yielding revenue. Under the conditions existing in the early stages of the development of such sparsely settled communities as the Republics of the *Transvaal* and the *Orange Free State*, where wealth was widely diffused and consisted almost entirely of landed property and live stock, the tariff was undoubtedly the most convenient source of revenue for the purpose of defraying increased expenditure.

From the date of its independence (1854) the *Orange Free State* had conducted negotiations with the Cape Colony, with a view to securing a fair share of the customs revenue collected at the ports of the Cape on goods destined for the Free State, but it was only with the formation of the Customs Union between the Cape and the O.F.S. in 1889 that a satisfactory arrangement was made. In the meantime the Free State had taken advantage of the low customs duties of Natal and imported a large proportion of her goods through Durban instead of through the Cape ports, and had levied low duties on such imports for the sake of revenue.

The *Transvaal* likewise lodged repeated claims for a share of the proceeds of customs duties levied at the Cape and Natal ports on goods destined for the country beyond the Vaal, but without success. The *Transvaal* Republic, however, appeared to be in a more favourable and independent position, with regard to her trade, than the *Orange Free State*. The nearest and most natural harbour for the *Transvaal* is Lourenco Marques, in Portuguese East Africa (Mozambique); and the Republic was able, as early as July, 1869, to conclude a treaty of commerce and friendship with Portugal, whereby "the two contracting parties, wishing to place the commerce of the respective countries on the liberal basis of perfect equality and reciprocity, mutually agree that there shall be reciprocal freedom of commerce between their territories." This treaty was renewed from time to time and remained in force throughout; but until 1893, when the railway from Pretoria to Delagoa Bay

was completed, the great bulk of the imports and exports of the Transvaal were handled through the Cape and Natal ports.

At first the customs duties levied by the Transvaal Government on goods imported into the Republic mainly through the Cape and Natal ports, and to a lesser extent through Lourenco Marques, were very low indeed. For example, in 1871, a duty of $1\frac{1}{2}$ per cent. only was imposed on such articles as furniture, musical instruments, and jewellery. But as the need for revenue increased, the duties were raised. A new tariff was introduced in 1881, when the Transvaal was in an impoverished state after the War of Independence and the State Treasury was without any funds at all. A general *ad valorem* duty of 5 per cent. was imposed upon all imports, and, in addition to this, moderate specific duties were levied on certain articles of luxury. Various alterations were subsequently made, but the tariff retained two characteristics: (1) higher taxation of luxuries than necessities, and (2) high protective duties on a few articles, such as dynamite, cement, biscuits, etc. Agricultural machinery and machinery for factories were admitted free of duty, but mining machinery was subject to a duty of 15 per cent., reduced to 5 per cent. in 1885. This continued to be one of the ways in which the mining industry was taxed.

With a few exceptions, the Transvaal tariff was framed for revenue purposes only, but, as the result of fiscal necessity, the import duties came to be high enough by 1888 to afford incidental protection to some industries.

Evolution of the South African Customs Union.—In view of the inconvenience caused by the existence of divergent and competitive tariff policies in the four main political divisions of South Africa, negotiations were set in motion during the eighties for the purpose of establishing a South African Customs Union, and bringing about uniformity in tariff legislation as well as reciprocal free trade between the members of the Customs Union. The forces which gave rise to such negotiations were the following:—

(1) *Divergences in Fiscal Policy.*—In the Cape Colony, in view of its revenue requirements and political exigencies, the tariff had been raised from time to time until, in 1884, the average rate on the total value of imports was 21.5 per cent., whereas in Natal, on account of the strength of the commercial community and the desire to acquire a large proportion of the trade with the republics, the tariff had been kept at a relatively low level, the average rate being 10.7 per cent. in 1884. This difference in tariffs placed the Cape at a disadvantage, in comparison with Natal, in the competition for the trade with the interior. Moreover, in the Transvaal fiscal necessity had brought about a high tariff, with distinct protective

tendencies in some cases, whereas the Orange Free State had comparatively low revenue duties.

(2) *Rise of Special Interests.*—The agricultural community of the Cape demanded a high tariff, whereas the commercial community of Natal and the mining population and mining interests of the Transvaal and the Cape wanted a low tariff. This necessitated a general compromise.

(3) *Taxation of Colonial Produce by Transvaal, and Retaliation.*—The financial difficulties of the Transvaal in 1881 had even led to the imposition of duties on several articles of colonial produce, such as flour, beer and brandy, whereupon the Cape retaliated by imposing duties on certain articles of Transvaal produce.

(4) *Duplication.*—The Transvaal and the Orange Free State had not succeeded in obtaining their legitimate share of the proceeds of customs duties levied at the Cape and Natal ports on goods destined for the Republics ; and, as they had found it necessary to enact tariffs for the sake of revenue, duplication was the result, and the burden of taxation on imported articles proved to be unduly heavy.

(5) *The Political Factor.*—Attempts had already been made to establish a political union or federation of the various territories in South Africa, but without success. Now the feeling began to make headway in some circles that, just as the German Zollverein (or commercial union of the German States) had been the first step towards the attainment of political union in Germany, so a South African Customs Union would break down artificial barriers and facilitate the creation of a political union in South Africa.

Customs Convention between Cape Colony and Orange Free State (1889).—The first step in the direction of uniformity in tariff legislation throughout South Africa was the conclusion of a customs convention between the Cape and the Orange Free State in 1889, which provided for : (a) a uniform tariff on all goods imported into those territories from overseas or from other territories in South Africa ; (b) an equitable distribution of the duties collected on goods imported into the one territory but destined for consumption in the other, 25 per cent. to be retained by the collecting territory for defraying the cost of collection and various other charges, and the remaining 75 per cent. to be paid over to the territory of destination ; and (c) free trade between those territories in respect of their own produce.

Natal and Transvaal were not prepared at this stage to enter the customs union, the former because the tariff which was decided upon by the majority of the delegates at the customs conference was regarded as too high, and because it was feared that Natal might

lose a portion of her trade with the interior if her duties were raised to the same level as those levied at the Cape ports ; and the Transvaal even refused to send delegates to the customs conference, for the following reasons.

In the first place, the Transvaal had proposed to the Cape, as early as 1885, the formation of a customs union, and repeated the proposal in the following year, along with the request that the Cape Government extend its railway from Kimberley to Pretoria, but in all cases an unsympathetic reply was received, which was greatly resented by the Republic ; so that, when the Cape subsequently began to move in the matter, the Transvaal was antagonistic.

Secondly, as the Transvaal had not yet succeeded in obtaining its fair share of the customs duties levied at the Cape and Natal ports, the Republic now definitely turned its attention to Lourenco Marques as the natural port and gave a concession to a company for the construction of a railway from Pretoria to Komatipoort, on the border of Portuguese East Africa, to meet a railway from Delagoa Bay. This railway, which was to link up the Transvaal with a harbour independent of the Cape and Natal, would give the Republic considerable bargaining power in negotiations for a customs union, was not completed yet, and accordingly President Kruger held aloof.

Finally, such factors may also be mentioned as the rise of the mining industry on the Rand and the influx of a large mining population as well as capital, and the tendency to protect certain industries.

Tariff Policy of Customs Union of Cape and O.F.S.—The tariff enacted under the Customs Convention of 1889 between the Cape and the Orange FreeState was primarily a tariff for revenue purposes, with a general *ad valorem* duty of 12 per cent., but it contained a number of duties which were either high enough to be protective or were definitely intended to afford protection to the industries concerned. For example, there was a duty of 2s. per 100 lbs. of wheat and 5s. per 100 lbs. of flour, which meant protection to the milling industry as well as the wheat farmer ; the wine industry was protected by a duty of 6s. per gallon of wine and 10s. 6d. per gallon of spirits, the cart- and wagonmaking industry by a duty of 20 per cent., the confectionery industry by a duty of 16s. 8d. per 100 lbs. of confectionery and the candle industry by a duty of 2½d. per lb. of candles.

In addition, provision was made for the imposition of a transit duty of 3 per cent. on all imported goods destined for consumption in the Transvaal.

Entry of Bechuanaland, Basutoland, etc.—In the Customs Convention of 1889 provision was also made that any civilised state of South Africa could enter the Customs Union on application. In accordance with this provision, British Bechuanaland was admitted in 1890, Basutoland in 1891, Bechuanaland Protectorate in 1892, and Pondoland in 1894.

Entry of Natal (1898).—Natal entered the Customs Union in 1898, because (a) the tariff of the Customs Union had been lowered since 1889, (b) the Cape and the Free State as members of the Customs Union had established customs houses on the Natal border to collect duties on goods imported from or through Natal, and (c) the "Country Party" which was in favour of high duties and protection to local industries, had come into power in Natal in 1897.

The tariff which came in force under the Customs Union Convention of 1898 was lower than that of 1889, but protectionistic principles were also incorporated. The general *ad valorem* duty was reduced from 12 to 7½ per cent., the margin between the duties on wheat and flour was reduced, and such articles as agricultural implements and machinery, manures, bags, etc., were admitted duty free. On the other hand, the duties on drinks and luxuries, coal, sugar, etc., were increased. Moreover, the collection charges were reduced from 25 to 15 per cent. of the customs duties.

The Transvaal held aloof again because Delagoa Bay had been converted into a fairly convenient harbour and rendered the Republic, to a large extent, independent of the Cape and Natal ports, and because it was disgusted after the "drift" episode,³ and perhaps suspicious of commercial union after the Jameson Raid.

General South African Customs Union (1903).—The ideal of a Customs Union, embracing all the territories in South Africa, was realised in 1903, the year after the close of the Anglo-Boer War. A Customs Conference was convened at Bloemfontein in March, 1903, when it was resolved to establish a general South African Customs Union, comprising the Cape Colony, Transvaal, Natal, Orange River Colony (later renamed Orange Free State), Southern Rhodesia, Basutoland, British Bechuanaland, and Bechuanaland Protectorate,

³ When the Cape Government tried to avoid using the Transvaal railway line from Vereeniging (on the border of the O.F.S. and the Transvaal) to Johannesburg, in view of the excessive rates, by unloading goods at Viljoensdrift for transportation on ox-wagons to Johannesburg, President Kruger closed the "drifts" or fords on the Transvaal border to overseas goods imported through the Cape. The Cape appealed to the British Government, which intervened in the matter, and the Transvaal was obliged to open the "drifts" again.

Swaziland being admitted in 1904. As a British Crown Colony, under the Governorship of Lord Milner, the Transvaal was now brought into the Customs Union, thereby completing the process of the gradual commercial federation of South Africa and securing the enactment of a common tariff against the outside world.

The tariff enacted under the Customs Union Convention of 1903 provided for a combination of revenue and protective duties. All the territories comprised in the Customs Union depended on customs duties as the main source of revenue, while certain industries had developed under the ever-growing tariffs, notably in the Cape and the Transvaal, and clamoured for more protection. The tariff had, therefore, to be framed in such a way as to yield sufficient revenue and at the same time afford a fair measure of protection to the established industries. On account of fiscal necessity, the protective duties were even required to produce a large amount of revenue, and accordingly could not be allowed to rise to such a high level as to prohibit or seriously curtail the importation of the articles concerned. Thus, they were not prohibitive or fully protective in their effect, but might justifiably be styled semi-protective duties.

The tariff had to take account of the fact that the agricultural industry of the Cape and Natal, and especially the sugar industry of Natal, wanted moderate protection against the increased competition of such countries as Australia, New Zealand, Argentine and Canada, whereas the gold-mining industry of the Transvaal was anxious to keep the cost of living as low as possible. This problem was solved by the reduction of railway rates from the coastal colonies to the interior, in order to offset the semi-protective duties on certain agricultural and pastoral products, such as wheat, sugar, wine, tobacco, butter, and cheese. In view of the reconstruction work in the conquered Republics (Transvaal and O.F.S.), building materials were admitted free of duty or at a very low duty.

Moreover, agricultural, mining and factory machinery and other requisites were admitted duty free; the 3 per cent. transit duty on goods landed at Cape and Natal ports for transmission to the Transvaal was abolished, the collection charge was reduced from 15 per cent. to 5 per cent. of the customs revenue collected on imports into the two coastal colonies destined for the other territories in the Customs Union; the existing semi-protective duties on established manufacturing industries were retained; inter-colonial free trade was now brought to completion, with the entry of the Transvaal; and preferential duties in favour of British goods were introduced again, after a lapse of 48 years (1855-1903).

Evolution of Imperial Preference.—The system of preferential duties in favour of British goods, which had formerly been employed by Great Britain in the Cape Colony, as in other British colonies, as a means of protecting her trade with her colonies, was revived again towards the end of the 19th century. While still under the influence of mercantilism at the end of the 18th century, Great Britain had devised the preferential tariff scheme to take the place of the old colonial policy of monopoly and exclusion of the foreigner, in her struggle for industrial and commercial supremacy. When that had been definitely attained, about the middle of the 19th century, and the policy of free trade and world economy had been adopted as the best policy for the enrichment of Great Britain, the whole network of preferential tariffs in the British Empire was broken down. The conquest of world trade and world markets rendered necessary the abolition of differentiation and the treatment of all nations on the same footing. But when, during the nineties, the competition of Germany and America, which had in the meantime made exceedingly rapid progress in industry and trade, began to cause anxiety in England on account of the loss of markets, there was a revival of mercantilism and a reaction from world economy to Imperial economy. The colonial markets were to be preserved for British goods. Something was to be done to protect British trade with the colonies against German and American invasion.

Joseph Chamberlain advocated an elaborate system of Imperial preference, on the basis of reciprocity, whereby Great Britain was to impose low customs duties on all imports, with the exception of raw materials, from countries outside the British Empire, and the colonies were to institute preferential duties in favour of British goods. The main aims of Chamberlain's scheme were to secure Imperial unity, to bind the Empire together by commercial ties, to acquire safe markets for British manufactures and to develop the Empire, as far as possible, into a self-sufficing economic unit, the colonies supplying the foodstuffs and raw materials and the mother country giving manufactures in return. But Chamberlain could not convert Great Britain to his doctrine of reciprocal preference, which would inevitably involve the abandonment of the policy of free trade, and this the British nation was not at all prepared to do. After years of unsuccessful campaigning, Chamberlain had to give way to a Liberal ministry in 1905, and the scheme was doomed for the time being.

In the meantime, however, Canada had introduced preferential duties in favour of British goods in 1897, and in 1903, under the influence of Lord Milner and on the strength of Imperial sentiment

after the Boer War, the South African Customs Union Convention provided for Imperial preference in the form of a rebate of 25 per cent. of the *ad valorem* customs duties in respect of imports from Great Britain and from such British colonies and possessions as granted equivalent reciprocal privileges to the Customs Union. Treaties of reciprocity were concluded by the Customs Union with Canada in 1904, Australia in 1906, and New Zealand in 1907.⁴

The system of rebates of customs duties in favour of Great Britain and those British dominions which have afforded reciprocal preference, has been continued in South Africa since 1903 and considerably extended. The principle of preferential treatment of British goods was confirmed by the Customs Conventions of 1906 and 1908, and applied not only to *ad valorem* duties but also to specific duties, many of which were raised especially for the sake of rebates on British goods. And, since the establishment of the Union of South Africa in 1910, the system of Imperial preference has been confirmed by statutes of the Union Parliament, notably the Customs Tariff Act of 1914, which is still the basis of our customs tariff. According to this Act, a rebate is allowed on imports from Great Britain and reciprocating British possessions to the extent of 3 per cent. of the value of the goods subject to *ad valorem* duties, *i.e.* if American or German or French goods are subject to an *ad valorem* duty of 20 per cent., British goods are only liable to a duty of 17 per cent. of their value, and where the former have to pay a duty of 3 per cent., the latter are admitted free of duty. In the case of specific duties, specific rebates are allowed, such as a rebate of $\frac{1}{4}$ d. on a duty of $2\frac{1}{2}$ d. per lb. of confectionery, or a rebate of 2d. on a duty of 1s. 2d. per 100 lbs. of wheat, or a rebate of 10d. on a duty of 5s. per 100 lbs. of candles.

Although South Africa has granted preferential treatment of British goods since 1903, it was not until 1919 that the principle of Imperial preference was put into practice in Great Britain, and even then it was of a very limited scope. Rebates were granted to the extent of—

- (1) one-sixth of the duty on tea, coffee, cocoa, sugar, dried fruit, tobacco, and motor spirits ;
- (2) one-third of the duty on cinema films, clocks, watches, motor cars, motor cycles, and musical instruments ;
- (3) 6d. to 1s. per gallon of wine and 2s. 6d. per gallon of spirits.

⁴ With regard to Australia, Canada and New Zealand, South Africa gives far more preference than she receives, in view of the fact that she imports considerably more from those dominions than she exports to them. For example, in 1911 South Africa granted rebates on goods imported from her sister dominions to the extent of £62,000 whereas their rebates on South African goods amounted to £6,700 only.

The limited scope of this reciprocity may be illustrated by the fact that, in 1920, our exports to Great Britain of the products which are entitled to rebates, such as sugar, dried fruit, wine, spirits, and tobacco, amounted to £650,000, whereas imports from Great Britain amounted to £55,700,000, on the great bulk of which rebates were allowed, involving remission of revenue by the Union to the extent of £1,314,000. On an average, however, rebates on British goods involve a loss in customs revenue of about £700,000 per annum.

Representations have since been made by the Dominions for increased preferential duties in Great Britain in favour of their produce, on the ground that they give far more preference than they receive, and at the recent Imperial Economic Conference, held in London in October, 1923, the Baldwin ministry declared itself prepared to double the preference given on wine and dried fruit, and perhaps to extend the entire system of reciprocal preference. But this would involve the whole question of tariff reform, as in the days of Chamberlain, and the probable abandonment of the established tradition of free trade in England. In the meantime, other developments had also taken place which brought the matter into the foreground, such as the great extent of unemployment and the severe depression in several industries in Great Britain. A general election was held in December, 1923, the results of which were distinctly unfavourable to the Baldwin Government and its programme of tariff reform; and consequently there is not much likelihood of an extension of the system of reciprocal Imperial preference, in the near future at any rate.

Tariff Policy of South African Customs Union (1903-10).—The South African Customs Union, which had been formed in 1903, had to be renewed in 1906. In view of the depression in South Africa at the time and the consequent shrinkage of revenue, Cape Colony and Natal had to cope with deficits and looked to higher revenue duties as the easiest and most convenient means of balancing revenue and expenditure. The convention of 1903 was accordingly denounced, and a Customs Conference was convened at Pietermaritzburg in March, 1906. The Cape and Natal Governments wanted higher duties for the sake of revenue, the agricultural and manufacturing interests clamoured for higher duties on the commodities with which they were concerned, for the sake of protection, and the mining and commercial interests demanded lower duties for the sake of a low cost of living and high profits.

The outcome was that the Customs Union was renewed and the tariff framed on a more distinctly protective basis than before.

In many cases the duties were raised solely for revenue purposes, but they also proved to be protective in their incidence. In other cases the motives were mixed, and attempts were made to reconcile revenue, protection, and Imperial preference. The general *ad valorem* duty was raised from 10 to 15 per cent. ; boots and shoes were rendered subject to 15 per cent., as also candles ; aerated waters, fruit syrups, biscuits and cakes, blankets, harness and saddlery became liable to 25 per cent. ; and many specific duties were raised so as to provide for rebates on British goods.

However, although the Customs Union was renewed, there was a good deal of dissatisfaction and discontent. In 1907 the Transvaal, which had now been granted responsible government, gave notice of its intention to withdraw from the Customs Union, on the ground that the tariff was not framed on an equitable basis. The mining interests were opposed to the high tariff, and the farmers felt the competition of Cape Colony under inter-colonial free trade. A Conference was summoned at Pretoria in May, 1908, when the Customs Union was renewed again after a few amendments had been inserted in the tariff, which remained substantially the same as before and was continued under the Union Government after the constitution of the Union of South Africa on the 31st May, 1910.

Tariff Policy of Union of South Africa (1910-23).—With the establishment of the Union of the four British self-governing colonies in South Africa, viz., Cape Colony, Transvaal, Natal, and Orange River Colony, the Customs Union Convention came to an end, and the Union Government entered into customs agreements with Rhodesia and the High Commissioner of the Native Territories (Basutoland, Swaziland, and Bechuanaland Protectorate), whereby a free interchange of South African produce and manufactures was secured. The customs tariff of the Customs Union was to remain in force until the Union Parliament made other provisions, and an equitable share of the revenue collected by the Union Government from duties on goods imported into the Union in transit to Rhodesia or the Native Territories was to be paid over to them. The old agreement between the Transvaal and Mozambique (Portuguese East Africa), by which the products and manufactures of the latter were allowed into the Transvaal free of duty and *vice versa*, had been renewed in 1909 for a period of ten years, to remain in force thereafter until either party to the agreement gave one year's notice of intention to terminate it.⁵

⁵ This agreement was denounced by the Union Government by formal notice dated April 1, 1922, and in 1923 a new agreement was concluded.

The tariff of the Customs Union was taken over by the Union Government in 1910 and maintained, with a few modifications, until the passing of the Customs Tariff Act⁶ in 1914. Several important amendments have been introduced into the tariff since 1914, but that Act is still the foundation of the tariff legislation and the tariff policy of the Union.

In accordance with the Customs Tariff Act of 1914, and in continuance of the tariff legislation of the Customs Union, the tariff policy of the Union Government aims at reconciling the interests of revenue, protection, and Imperial preference. The tariff of the Union of South Africa comprises (1) duties which are levied primarily for the purpose of yielding revenue; and (2) duties which are levied partly for the purpose of affording protection to established industries and partly for revenue purposes; and in the case of nearly every duty provision has been made for preference in favour of imports from Great Britain and the reciprocating Dominions. Customs duties still represent the principal source of revenue, although the introduction of income and other taxes has tended to make that form of taxation of relatively less importance in the fiscal system of the Union. For example, in 1913-14 customs duties yielded £4,733,000 out of a total of £15,981,000, or 29·6 per cent. of the total, as compared with £6,288,000 out of a total of £26,886,000 in 1919-20, or 23·4 per cent.

Thus, after the lapse of more than a century, the State is still dependent upon the tariff as a means of obtaining a large proportion of the revenue needed for defraying the cost of government and administration. To make the tariff yield a large revenue by rendering virtually all imported commodities liable to taxation, without any definite pre-determined aim at fostering the growth of local industries, has all along been the predominating feature in the tariff policy of South African Governments. The Union Government has inherited it from the Colonial Governments and has maintained the old iniquitous tariff system in all its glory, the only important difference being that the duties have been substantially raised in many instances and that local industries have consequently received a larger measure of incidental protection.

As a result of the incidental protection afforded by the constant raising of the customs duties, as the fiscal needs of the State increased, many branches of the manufacturing industry have come into existence in South Africa and have gradually developed and expanded. Beginning in the eighties and becoming more deter-

⁶ This Act was, to a large extent, based on the report of the Commission on the Industries and Trade of the Union which had been appointed by the Union Government in 1910.

mined in their efforts since the Boer War, these industries have demanded more substantial protection on the ground that they are frequently endangered by foreign competition, which may be either fair or unfair, in the form of dumping, and that they can only extend their activities on the assurance of definite, instead of incidental, protection by means of special protective duties and anti-dumping provisions. Their demands have become more and more pronounced, the result of which has been a gradual incorporation in the tariff, during the course of the past 20 years, of several protective and semi-protective measures.

The Customs Tariff Act of 1914 provides for a combination of specific and *ad valorem* duties. The specific duties relate, in particular, to the varieties of foodstuffs (of animal or vegetable origin), drinks (spirits and alcoholic liquors or non-alcoholic beverages), and tobacco (cigars, cigarettes, snuff, pipe tobacco, etc.). As examples of foodstuffs may be mentioned: butter, 2½d. per lb.; eggs, 1d. per lb.; meat products, 1½d. per lb.; fish, 1½d. per lb.; wheat, 1s. 2d. per 100 lbs.; flour, 2s. 6d. per 100 lbs. (increased to 3s. 3d. in 1923); rice, 1s. per 100 lbs.; confectionery, 2½d. per lb.; fruit canned or dried, 2½d. per lb.; potatoes, 2s. per 100 lbs.

With regard to spirits and alcoholic liquors, the rates are at present, after substantial increases for revenue purposes in 1916, 1919 and 1921, the following: perfumed spirits, £1 19s. per imperial gallon (and in addition 10 per cent. *ad valorem*); liqueurs, £1 18s. 6d. per gallon; other kinds of spirits, £1 17s. 6d. per gallon. And on tobacco and tobacco products the duties are now, after amendments in 1921 and 1922, the following: manufactured tobacco, 5s. per lb.; unmanufactured tobacco, 3s. 6d. per lb.; cigars, 8s. 6d. per lb. (and in addition 15 per cent. *ad valorem*); cigarettes, 6s. per lb. (and in addition 15 per cent. *ad valorem*).

The *ad valorem*⁷ duties are subdivided into 3 groups, namely, the 25 per cent. rate, the 3 per cent. rate, and the general *ad valorem* rate of 20 per cent. which applies to all goods, wares, and merchandise not specified under other headings or enumerated in the free list.

The 25 per cent rate is levied for the purpose of revenue as well as protection. It proves to be protective, although not in the sense of being prohibitive, as it still yields a substantial revenue, in the case of such articles as blankets, sheets, and rugs, harness, saddlery, and various other leather manufactures, carriages, carts,

⁷ Under the Customs Tariff Act of 1914 the definition of value, for the purpose of levying *ad valorem* duties, is "the true current value for home consumption in the principal markets of the country from which the goods were imported at the time of importation, including the cost of transportation to the port of shipment and the cost of packing."

coaches, and wagons, printed, lithographed and embossed matter, bricks, fruit juices, cordials, and syrups, biscuits and cakes. But it is imposed, primarily for the purpose of revenue, on such articles of luxury as gold and silver-plated ware, watches and watch-cases, jewellery of all kinds, perfumery, dyes, powders, and other preparations for toilet use, tobacconists' wares, phonographs, gramophones, and records, cinematographs, magic lanterns, etc. The general *ad valorem* rate of 20 per cent. is also protective, to a certain extent, but the main underlying motive is the production of revenue. For that purpose it was raised from 15 per cent., the rate prescribed by the Customs Tariff Act of 1914, to 20 per cent. in 1915 in view of the shrinkage in revenue occasioned by the outbreak of the European War and the South African Rebellion.

The 3 per cent. rate is levied with a view to bringing in revenue as well as affording preference to British goods. Those goods which are specified in this group and are imported into the Union from Great Britain and reciprocating dominions, are admitted free of duty, while similar goods from all other countries are liable to the duty of 3 per cent. This rate applies to a large variety of goods, to raw materials and semi-manufactured materials required for manufacturing purposes in South Africa as well as finished articles. For example, the duty is levied not only on machinery, apparatus, appliances, and implements for agricultural, manufacturing, mining, bookbinding, printing, and other industrial purposes, but also on unmanufactured and partly manufactured metals, bookbinders' requisites, etc. Various other requisites for manufacturing are also subject to this duty: leather, unmanufactured India rubber, unmanufactured wood, packing material, plain or composite paper, confectioners' requisites such as moulding starch, gelatine, and unsweetened cocoanut, hops, hair for broom and brush-making, etc.

The free list is comparatively small, the most important articles included therein being books and music, dyes for manufacturing purposes and tanning substances for leather, surgical instruments and appliances, nitrates and guano, and bags.

Recent Protective Measures.—During the last two years the Union Government has, in view of the continuance of abnormal conditions within as well as outside the Union, resorted to a number of protective or semi-protective measures, some indeed of a purely temporary character. For example, in July, 1922, a proclamation was issued, prohibiting the importation into the Union, except under permit given by the Commissioner of Customs, of sugar and of boots and shoes made of leather or of which leather is the chief constituent part, until the 30th June, 1923. Since that date sugar has been removed from Government control, but the prohibition

of the importation of boots and shoes below a certain minimum price has been replaced by an increase in the import duty from 20 to 30 per cent., or from 17 to 27 per cent. in the case of British boots and shoes.

In 1922 provision was also made for the imposition of special duties in cases where (1) the exchange value of the currency of the exporting country is depreciated and, by reason of such depreciation, goods are being imported into the Union at prices which are detrimental to South African industries, and (2) goods are being offered for sale in the Union for an amount which is less than the price at which similar goods are sold wholesale in the principal markets of the country of their manufacture for consumption therein, plus the cost of transportation and packing.

Board of Trade and Industries.—In view of the increasing importance and complexity of the tariff problems of the Union, the Board of Trade and Industries was established in July, 1921, to hear and examine complaints or recommendations which may be made as to the working of the customs tariff, and to advise the Government in regard to (a) such action as may be necessary or advisable for assisting the development of industries established, or likely to be established, in the Union, and (b) the recasting of the customs tariff and the adjustment of anomalies which may from time to time be shown to occur in the tariff.

The appointment of this Board is a step in the right direction and is likely to prove of great significance in the formulation of a scientific and well-ordered tariff system, but, on account of the lack of an adequate administrative and technical organisation, the Board has not been able, up to the present, to undertake investigations in such great detail and of such wide range as to assume the important rôle for which it was intended. The organisation of the United States Tariff Commission, judged in the light of the results achieved, may serve as an indication of what is still to be done here to remove the many anomalies from the customs tariff and to place it on a sound footing. It frequently happens that the interests of revenue, protection and Imperial preference do not coincide, and in the absence of adequate facilities for studying the needs of industries as well as finding a more equitable method of distributing the burden of taxation, this clash of interests has led to a great deal of patchwork and the evolution of a tariff which contains many items of a distinctly anomalous character.

CHAPTER 12.

FOREIGN TRADE.

The Cape under the Dutch East India Company.—In consequence of the restrictions on imports and exports there had been very little foreign trade at the Cape throughout the period of the Company's rule. With very rare exceptions the colonists were forbidden to export their produce or import goods on their own account. The Company claimed the sole right to have goods sent out of, or brought into, the colony. From time to time such products as wheat, rye, beans, peas, wine, brandy, butter, etc., were exported by the Company from the Cape to its settlements in the East Indies, but only in relatively small quantities. On the other hand, the Company also undertook to bring into the colony, from the Netherlands and the East Indies, such goods as could not, or were not allowed to, be produced or manufactured in the colony. From the beginning the colonists were bound by the terms on which land was granted to them, to purchase their requirements from the Company's stores only.

Thus, the commercial relations of the Cape with the Netherlands and the East Indies were stringently regulated by the Company, and attempts were made to centre the whole foreign trade of the colony in the hands of the Company. From an early stage, however, the colonists found it possible to evade the restrictions and regulations in respect of trade, but of course not to such an extent as to neutralise the evil effects thereof. Like all the other colonies, the Cape was largely dependent upon imported goods for the satisfaction of many of its wants, and the most important way of paying for imports is generally by means of exports; but as the colonists were practically debarred from foreign trade, they were deprived of the principal means of obtaining the articles and implements necessary for the maintenance of a high standard of production and consumption.

In general the colonists were more successful in evading the Company's monopoly of the import trade than the export trade, probably due to the greater bulk, in proportion to the value, of the Cape produce and, consequently, the greater difficulty of smuggling, with the result that there was an excess of imports over exports and that larger payments were to be made to foreign countries than received from them. As a result of the limited quantity of metallic coins available for foreign payments, such

payments had to be made to a large extent in foreign bills of exchange, *i.e.* rights to draw money in foreign countries, mainly Holland at the time ; and in view of the lack of export bills on Holland, there was a keen demand for other kinds of claims to money abroad, such as bills in the form of rights to draw the salaries of servants of the Company in Holland. Such bills could be sold in Cape Town at a premium, *i.e.* at a higher price than the amount stated thereon, on account of the fact that the demand for foreign bills exceeded the supply, which was again due to the large excess of imports over exports ; and consequently a large number of the Company's servants availed themselves of the privilege of having their salaries payable in Holland instead of in Cape Town.

The Cape (1795-1825).—Although for a long period under British rule restrictions on foreign trade were still enforced, in the interests of British trade and shipping, the colonists were afforded greater opportunities of importing manufactured goods and of exporting local produce in order to acquire an increased purchasing power for the payment of imports. For a number of years, however, an export trade could not be developed on any large scale, while the imports advanced to considerable proportions in view of the fact that, according to General Craig, the Cape was found to be “destitute of almost everything” in 1795. From 1797 to 1802 the average annual imports of merchandise and slaves amounted to £254,000 and £45,000 respectively, whereas the exports amounted to £15,000 only, leaving an unfavourable balance of trade to the extent of £284,000.

This balance of trade against the Cape was paid by means of the lavish expenditure of money in the Colony on the part of the Imperial authorities. A considerable armed force was maintained at Cape Town and defensive works were constructed. Moreover, the purchase of provisions and other commodities by the crews of trading vessels or men-of-war putting into Table Bay for a time, likewise contributed to meeting the foreign claims against the Cape on account of imports.

After 1806 the exports of the Cape began to develop more rapidly. In 1813 preferential import duties were instituted in Great Britain in favour of Cape wine, in consequence of which a large export trade in wine was carried on with the Mother Country. Wine became the principal item of export at the Cape. In 1814 already 1,171,000 gallons of wine were exported from the Cape to England, rising to 1,320,000 gallons in 1817 and 2,926,000 in 1824. Moreover, during the period from 1815 to 1821 the Island of St. Helena, where a garrison and a squadron were stationed for the purpose of

guarding Napoleon, afforded a good market for a variety of Cape produce and live stock, such as wheat, flour, barley, oats, dried fruit, wine, cattle, sheep, horses, poultry, butter and soap. An attempt was also made in 1814 to encourage the formation of a *dépôt* for Indian goods in the Colony, merchants of the Cape being permitted "to import merchandise of every description, except tea, from any port of the East, except China, and export it again to various parts of the world"; but this privilege was not taken advantage of to any considerable extent.

The exports of the Cape, during this period, consisted primarily of wine, grain, hides and skins, aloes, horses, ostrich feathers and butter. Minor items of export were live cattle and sheep, dried fruit, whale oil, wool, ivory, salt, etc. Between 1814 and 1825 wine comprised more than one-half of the total exports of the Colony. Colonial exports advanced from an insignificant quantity in 1795 to a value of £185,000 in 1820, £234,000 in 1822 and £251,000 in 1825, the great bulk of which was carried to Great Britain and the British Colonies in British ships as a result of discriminations against foreign ships and foreign goods. For example, out of a total export of £251,000 in 1825 produce to the value of £173,000 was shipped to Great Britain, £72,000 to British Colonies and £6,000 only to foreign countries.

In spite of the increased exports, however, there was always an excess of imports over exports. During the years 1806-14, when British merchants were still in doubt as to whether the Cape will become a permanent possession of Great Britain or not, and consequently adopted a half-hearted trade policy, the average annual imports amounted to £105,000 only; but after the conclusion of peace British manufactures were poured out of their over-crowded warehouses into the Cape, so that between 1815 and 1825 the imports were on an average £337,000 per annum. This was considerably in excess of the exports, resulting in an unfavourable balance of trade which was met, to a large extent, out of :

- (1) Commissariat bills on England, *i.e.* bills drawn on the British Treasury by the Cape Governor for the purpose of defraying the expenses of the Imperial army in the Colony. These bills, expressed in terms of pounds sterling, were issued from the Commissariat and purchased by the importing merchants who had to remit money to England in payment of goods imported. In 1821 these commissariat bills produced 1,933,000 rds., or about £145,000.
- (2) Bills drawn on India and England by the wealthy Indians who used to visit the Cape for health purposes and incurred a good deal of expense in board and lodging, travelling, the

purchase of race horses, etc. In 1821 these bills were of the value of 700,000 rds., or about £52,500.

- (3) Transfer of capital from England to the Cape for investment in colonial trade and industry. This item, however, was very small at this stage of the Colony's development.

These so-called "invisible" exports, however, were frequently insufficient to meet the balance of "visible" imports, with the result that the demand for bills on England for the payment of imports exceeded the supply of such bills and raised the price thereof, thereby creating a premium on English money in terms of Cape money or, in other words, bringing about a depreciation of the paper rixdollar of the Cape in terms of pounds sterling. Depreciation of the rixdollar was also due to the excessive issue of inconvertible paper money, but it was aggravated by the unfavourable balance of payments, *i.e.*, the excess of visible and invisible imports over visible and invisible exports. The rate of exchange on London, *i.e.*, the number of paper rixdollars to be paid in exchange for a bill of £1 on London, had risen more than 100 per cent. by December, 1816; and thus the Cape rixdollar which had been nominally worth 4s. had depreciated to less than 2s. The rate rose $133\frac{1}{8}$ per cent. by September, 1818, declining to $105\frac{5}{12}$ per cent. in March, 1819, and then rising again to 161 in September, 1821, and 195 in May, 1822. In other words, at the last-mentioned date the Cape rixdollar was only worth 1s. $4\frac{1}{4}$ d. in English money. This great depreciation of the rixdollar in 1821-22 was due mainly to the considerable importation of rice and wheat in order to relieve the famine caused by the almost complete failure of the wheat crops of the English settlers in the eastern districts, and in the western districts to a smaller extent. In those two years the total imports into the Colony amounted to £751,000, and the total exports £362,000.

The average exchange value of the Cape rixdollar between 1821 and 1825 was 1s. 6d., at which rate it was fixed by the Imperial Government in 1825 and rendered convertible into sterling bills on England.

Exports of the Cape (1825-1910).—Wine continued to be the leading article of export from the Cape Colony until 1842, when it was displaced by wool as well as by hides and skins. In 1825 and 1831 the preference in favour of Cape wine on importation into England was substantially reduced, in consequence of which the export of wine declined considerably, *e.g.*, from £149,000 in

1829 to £43,000 in 1842. The export of wool, on the other hand, advanced steadily year by year, from £545 in 1826 to £26,000 in 1836 and £72,000 in 1842, while the export of hides and skins fluctuated from £30,000 in 1826 to £71,000 in 1834 and £51,000 in 1842.

After 1842 the export of wool from the Cape ports developed very rapidly, rising to £501,000 in 1853, £1,447,000 in 1860 and £3,275,000 in 1872, then gradually declining to £1,889,000 in 1878. In that year wool was displaced by diamonds as the principal export of the Colony, and in 1892 diamonds were in their turn surpassed by gold, which is still by far the most valuable item in the export trade of the Cape.

The following table shows the growth of the most important exports of the Cape Colony between 1826 and 1909 :

Principal Exports of the Cape (1826-1909).

Year.	Wine.	Wool.	Diamonds.	Gold.	Hides & Skins.	Mohair & Ostrich Feathers.
	£	£	£	£	£	£
1826 ..	98,000	545	—	—	30,000	3,000
1842 ..	43,000	72,000	—	—	51,000	3,500
1861 ..	34,000	1,458,000	—	—	97,000	24,000
1872 ..	—	3,275,000	1,618,000	745	378,000	217,000
1878 ..	—	1,889,000	2,159,000	35,000	295,000	700,000
1892 ..	—	2,029,000	3,907,000	4,096,000	480,000	891,000
1903 ..	—	1,818,000	5,473,000	11,980,000	470,000	1,598,000
1909 ..	—	2,855,000	6,370,000	32,160,000	861,000	2,900,000

Between 1872 and 1909 the export of wool from the Cape ports, mainly Port Elizabeth, was more than doubled in quantity, viz., 48,823,000 lbs. in 1872 as compared with 102,347,000 lbs. in 1909 ; but the value of the wool export declined in consequence of the fall in the price of wool. Most of the exports of wool, hides and skins, mohair and ostrich feathers, including those of the Orange Free State, were shipped from Port Elizabeth, and to a smaller extent from Cape Town and East London ; and almost all the diamonds and gold, mined in the Cape, Transvaal and O.F.S., were shipped from Cape Town. After 1885 the exports of minerals (gold, diamonds and copper) represented more than one-half of the value of the total exports of the Cape Colony.

Exports of Natal (1845-1910).—During the twelve years 1845-56 (both inclusive) the total exports from the Colony of Natal amounted

to £257,000, which consisted mainly of ivory, hides and skins, wool, maize and butter ; and the total imports into Natal amounted to £940,000, leaving a balance of £683,000 against the Colony. This balance was met mainly out of the Imperial expenditures in connection with the military garrison, and to a smaller extent out of capital introduced by immigrants.

After 1862 the export of sugar to the Cape Colony increased rapidly, and after 1870 the export of wool, hides and skins to England was developed on a large scale. Subsequently gold, coal, maize and wattle bark also came to the forefront and swelled the exports of Natal. Durban became the principal port for the shipment of the agricultural and pastoral products of Natal, Transvaal and the north-eastern districts of the O.F.S.

Principal Exports of Natal (1845-1909).

Year.	Ivory.	Hides and Skins.	Wool.	Sugar.	Maize.	Gold.	Coal.
	£	No.	£	Tons.	Tons.	oz.	Tons.
1845	3,500	(£2,500)	232	—	(£858)	—	—
1862	27,000	23,000	38,000	846	618	—	—
1880	7,000	300,000	529,000	11,700	838	—	—
1890	112	518,000	735,000	1,100	2,000	49,000	24,000
1904	—	1,715,000	289,000	4,400	8,000	252,000	396,000
1909	—	10,598,000	889,000	9,900	91,000	296,000	1,239,000

Relation between Imports and Exports.—In South Africa, as in other new countries, the imports regularly exceeded the exports until within the last 60 years the tendency towards an excess of exports over imports began to manifest itself clearly. In 1866, for the first time, the exports through Cape and Natal ports exceeded the imports, and this favourable balance of trade was maintained for eight years in succession. In other words, it seemed as if South Africa had arrived at the stage where the visible exports (merchandise) had to exceed the visible imports in view of the fact that the invisible imports¹ (interest, dividends and profits on foreign capital invested in South Africa, freight, insurance, etc.) had come to be larger than the invisible exports (capital imports, Imperial military expenditures, etc.).

¹ Payments which are due by one country to another for any purpose whatsoever, have the same effects as payments for direct importations. The existence of a favourable or adverse balance of indebtedness is not primarily dependent upon the excess of exports over imports or of imports over exports, but rather upon the entire payments which are to be made between the respective countries.

In 1874, however, there was an unfavourable balance of trade, which was maintained without a break for ten successive years, *i.e.*, until 1884. This was brought about by a considerable importation of capital consequent upon the opening of the diamond mines and the general expansion of economic activities. Foreign capital was introduced for the purpose of exploiting the diamond fields, building railways and harbours, undertaking commercial enterprises, extending banking operations, etc.; and this had the effect of increasing the imports considerably and paying for a substantial portion thereof. By 1884 the imports had declined to the level of 1874, whereas the exports were above the former level owing to an increased export of diamonds, with the result that the year 1884 showed a favourable balance of trade again. This year definitely marked the transition from a normal excess of imports over exports to a normal excess of exports over imports.

During the period of 40 years 1884-1923 (both inclusive) there was an unfavourable balance of trade in only ten years, due to the intervention of disturbing factors. In the first place, the years 1889 and 1890 showed a balance of trade against South Africa in consequence of the abnormal importation of capital following upon the opening of the gold mines on the Rand. Secondly, in 1896 and 1897 there was again an excess of imports over exports owing to the extension of deep-level mining and other enterprises and the consequent importation of capital. Then, during the five years of the Boer War and the reconstruction of the conquered territories (1900-04), there was an unusual balance of imports to be paid for by means of invisible exports. The total imports of merchandise in that period amounted to about £180,000,000, and the exports to £95,000,000. The large amount of invisible exports required to meet this balance, in addition to the invisible imports, was obtained in the form of the huge military expenditures incurred by the Imperial authorities in South Africa during the War, and the colossal importation of capital after the War for reconstruction purposes. The two Crown Colonies negotiated a loan of £35,000,000 in London in 1903; the Cape and Natal Governments and the leading municipalities likewise borrowed money overseas for development purposes; new business enterprises were established with foreign capital, and large numbers of immigrants entered the country, etc.

The year 1905 marked the final "overturn" in our trade balance. Since that time, with the exception of 1920, when there was an abnormal importation of merchandise at highly inflated values, there has always been a substantial balance in our favour.

These movements in our foreign trade are illustrated in the accompanying graph and table of statistics :

Imports and Exports through Cape and Natal Ports (1797-1909).

Five-Year Period.	Cape.		Natal.		Union.	
	Imports.	Exports.	Imports.	Exports.	Imports.	Exports.
Average.	£	£	£	£	£	£
1797-1802 ..	299,000 ^a	15,000	—	—	299,000	15,000
1820-1824 ..	359,000	217,000	—	—	359,000	217,000
1850-1854 ..	1,603,000	778,000	113,000	27,000	1,716,000	805,000
1865-1869 ..	2,073,000	2,372,000	337,000	255,000	2,410,000	2,627,000
1870-1874 ..	4,003,000	4,648,000	778,000	594,000	4,781,000	5,242,000
1875-1879 ..	5,936,000	5,625,000	1,471,000	674,000	7,407,000	6,299,000
1885-1889 ..	5,547,000	7,788,000	2,506,000	922,000	8,053,000	8,710,000
1890-1894 ..	10,018,000	11,917,000	2,862,000	1,182,000	12,880,000	13,099,000
1895-1899 ..	16,294,000	20,171,000	4,846,000	1,834,000	21,140,000	22,005,000
1900-1904 ..	25,255,000	16,944,000	10,859,000	2,215,000	36,114,000	19,159,000
1905-1909† ..	16,360,000	41,381,000	8,262,000	3,439,000	24,622,000	44,820,000

^a Including slaves to the value of £45,000.

† Statistics are available with regard to trade through Delagoa Bay in the years 1905-09 : Average Imports £3,948,000, and Exports £258,000.

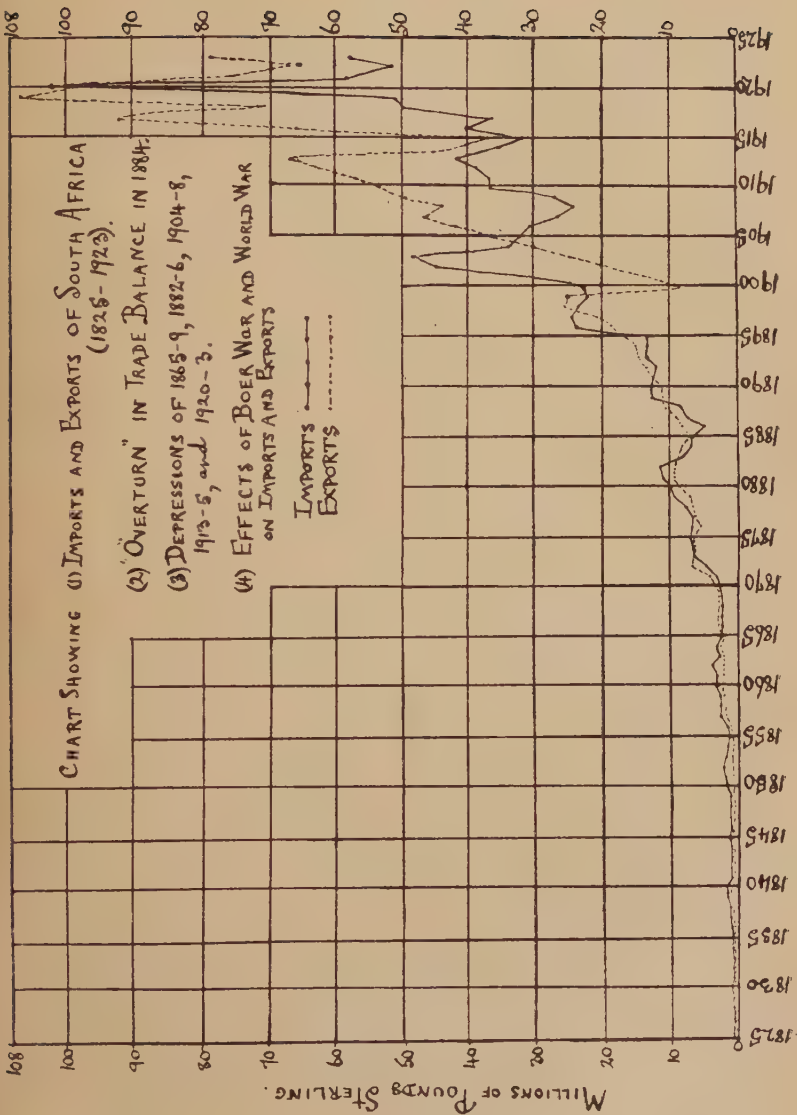
Foreign Trade of the Union (1910-1923).—Since 1910 the foreign trade of the Union has been subject to considerable fluctuations in consequence of (a) the abnormal war conditions in 1914-18, (b) the great boom of 1919-20, and (c) the depression of 1920-24. These fluctuations are illustrated in the following table, which also shows the balance of trade and the net imports of specie :

Imports and Exports of the Union (1910-1923).

Year.	Value of Imports.	Volume of Imports.*	Value of Exports.	Volume of Exports.†	Balance of Trade.	Net Imports of Specie.
	£		£		£	£
1910 ..	36,727,000	1,033	53,609,000	986	16,882,000	1,884,000
1913 ..	41,829,000	1,111	66,569,000	1,117	24,740,000	878,000
1915 ..	31,811,000	791	34,818,000	733	3,007,000	1,828,000
1918 ..	49,487,000	690	70,633,000	771	21,146,000	1,837,000
1919 ..	50,791,000	570	106,403,000	1,075	55,612,000	2,279,000
1920 ..	101,827,000	895	98,896,000	719	2,931,000	3,999,000
1922 ..	51,413,000	712	64,978,000	913	13,565,000	72,000
1923 ..	57,815,000	963	78,326,000	1,022	20,511,000	—292,000
Average 1910-23	47,680,000	—	68,619,000	—	20,939,000	1,300,000

* Index number of volume of imports and exports (average of 1909-13 equals 1,000).

† Index number of volume of exports is based on the exports of all South African produce, excluding gold.



Thus, during the period from 1910 to 1923 the average annual imports and exports of the Union amounted to £47,680,000 and £68,619,000 respectively, leaving a favourable balance of trade of about £21,000,000 per annum.

The value of the imports was subject to a substantial decline in 1914 and 1915 as a result of the disturbances in trade and industry created by the European War, and the consequent decrease in the volume of imports. Then the value of the imports began to rise gradually in view of the higher prices prevailing throughout the war period, and in spite of a further decrease in the volume of goods imported which reached its lowest level in 1919. This was due mainly to the lack of shipping accommodation and the abnormal demand for goods in Europe. The year 1920 marked the record value of imports into the Union on account of an increased importation of goods at highly inflated values. Then the depression came and brought about a considerable decline in the value, as well as the volume, of imports.

The value of the exports was likewise subject to a great decline in 1914 and 1915, but subsequently there was a rapid rise in value owing to the inflated prices, reaching its highest level in 1919 and accompanied by a substantial increase in the volume of exports. As a result of the depression the exports declined in value and in volume, falling even as low as £64,978,000 in 1922 on account of the prolonged strike on the gold mines and the reduced export of gold. Since the beginning of 1923, however, there has been a steady increase in both exports and imports.

Balance of Trade and Balance of Payments.—The balance of trade is the difference between the imports and exports of merchandise. Since 1910 there has been, on an average, an annual trade balance of about £21,000,000 in favour of the Union. Allowing for the net imports of specie, mainly from England, which were comparatively large until 1920 on account of the absence of a local mint and the considerable drainage of coins out of the Union through repatriated Indians, East Coast natives employed in the mines or other enterprises, etc., the net balance of trade has been about £19,500,000 per annum. In general this balance of trade may be taken as reflecting the normal course of our commercial and financial transactions with the outer world. In other words, the exports of the Union must generally exceed the imports by about £19,500,000 in order to secure the equation of total credits and debits, in view of the fact that our invisible imports exceed the invisible exports by that amount. For normal years in the near future, however, this figure may be somewhat reduced when taking into consideration the war and post-war inflation of all values. The

balance of trade fluctuates from year to year and is much larger or smaller in some years than in others, but over a long period the average balance must approximate that figure, since the excess of invisible imports over invisible exports can only be paid for in the long run by means of visible exports.

The balance of payments of the Union is the difference between all the payments which are to be made to other countries for visible or invisible imports and all the payments which are to be made to this country by other countries for our visible and invisible exports; and it is this balance of payments, or of total mutual indebtedness, which is the fundamental factor in the regulation of the foreign exchanges.

Invisible Imports.—The invisible imports of the Union, *i.e.*, the payments to be made to other countries in respect of other items than imports of merchandise, may be briefly summarised as follows:

(1) *Interest and dividends* on British and other overseas capital invested in our railways, harbours and other public works, and in mining, industrial and commercial companies, and the profits of branches of British and other business enterprises. An enormous amount of foreign capital, mainly British but also German, Dutch, American, French, etc., has been invested in the Union. According to the estimate of Sir George Paish², the total British capital invested in South Africa in 1910 amounted to £351,368,000, the main items of which were the following:

Mining Companies	.. .. .	£125,065,000
Government Undertakings	.. .. .	97,379,000
Financial, Land & Investment Enterprises	.. .. .	73,363,000
Municipal Undertakings	.. . /	17,700,000
Private Railways and Tramways	.. .. .	11,155,000
Commercial and Industrial Enterprises	.. .. .	7,024,000
Iron, Coal and Steel Companies	.. .. .	6,392,000

At present the amount of British capital invested in South Africa must be over £400,000,000, since the Union annually imports between £4,000,000 and £10,000,000 of foreign capital, which is principally from Great Britain. The interest, dividends and profits on this capital probably vary from £16,000,000 to £20,000,000 per annum.

(2) *Freight and Insurance*.—The carrying trade between the Union and other countries is conducted almost entirely by oversea shipping companies, mainly British, but also German, Dutch, American, Japanese and Scandinavian. The freight charges to be paid to oversea shipping lines, therefore, constitute a fairly important item in the list of invisible imports. Marine insurance is likewise carried on primarily by oversea insurance companies. The payments to be made abroad in respect of freight and insurance have been variously stated to amount to £4,000,000 or £6,000,000 per annum.

(3) *Expenses of South Africans* travelling or studying or temporarily residing abroad, withdrawal of funds by emigrants, and remittances to relatives in other countries. This represents a comparatively large amount for a country like the Union, since many of the wealthy mine magnates spend large sums of money abroad every year. It has been estimated that such expenses and remittances exceed similar expenses by oversea tourists and business men in South Africa by about £4,000,000 per annum.

(4) *Purchase of Stocks and Securities of Governments and Companies of other Countries*.—This, however, is not an important item.

Invisible Exports.—On the other hand there are certain invisible exports, i.e., payments made by other countries to the Union in respect of other items than our exports of goods, such as in the case of :

(a) *Government Loans contracted abroad and Investment of Foreign Capital in various private enterprises*.—Capital imports into the Union represent claims against the country of origin. Shares and securities are sold and exported and a transfer of funds from England or elsewhere to the Union takes place, as in the case of exports of mineral or agricultural products to that country. The Union imports on an average from £4,000,000 to £10,000,000 of capital every year.

(b) *Imperial Expenditures in South Africa* in connection with governmental, military or commercial affairs.

(c) *Interest and Dividends* on South African capital invested in foreign countries, or profits of branches of South African firms overseas. This is a very small item.

(d) *Expenses of Foreign Tourists, Consuls, Trade Commissioners, etc.*, likewise a negligible amount.

Trade Balance Sheet.—Although accurate statistics are not available concerning several of the invisible items, it is possible

to construct a rough balance sheet of our commercial and financial transactions with other countries on the basis of an average of the years 1910-23, in the following manner :

<i>Cr.</i>		<i>Dr.</i>	
(1) <i>Visible Exports :</i>		(1) <i>Visible Imports :</i>	
(a) Merchandise ..	£68,619,000	(a) Merchandise ..	£47,680,000
(b) Specie ..	150,000	(b) Specie ..	1,450,000
Total ..	£68,769,000	Total ..	£49,130,000
(2) <i>Invisible Exports :</i>		(2) <i>Invisible Imports :</i>	
(a) Government Loans and Investment of Foreign Capital	£6,000,000	(a) Interest, Dividends & Profits	£19,000,000
(b) Imperial Expenditures and other items ..	4,000,000	(b) Freight and Insurance ..	5,000,000
Total Exports	£78,769,000	(c) Expenses of South Africans abroad, etc. ..	4,000,000
		(d) Other items ..	1,000,000
		Balance ..	639,000
		Total Imports	£78,769,000

Rate of Exchange.—The rate of exchange between two countries, *i.e.*, the value of the monetary unit of one country expressed in terms of the money of the other, depends upon the price of bills of exchange which constitute the principal means of paying their mutual indebtedness ; and the price of such bills is ordinarily determined, within certain limits, by the relation between supply and demand. The supply of foreign bills is created by the visible and invisible exports, and the demand by the visible and invisible imports ; and therefore, other things remaining the same, foreign exchange rates depend primarily upon the relation between the total imports and exports of the respective countries, fluctuating from day to day according as the demand or supply varies. If the visible and invisible exports of a country exceed the visible and invisible imports, the rates of exchange on foreign countries will be in its favour, *i.e.*, its money will command a premium in other countries, and *vice versa*.

However, the rate of South African exchange, *i.e.*, the price which South African money commands in London or the value of South African money in terms of English money, as the Union has no direct exchange relations with the money markets outside of London, does not fluctuate from day to day or from hour to hour, as is ordinarily the case, but frequently remains unchanged for considerable periods and is, subject to the modifying influence of the balance of trade or rather the balance of payments, fixed

by the joint action of the two leading banks. During the course of a whole year, however, the rate may fluctuate appreciably from one side of parity to the other. For example, in 1920 when there was an unfavourable balance of trade, and of course a much larger balance of payments against the Union, the rate of exchange swung from a premium of $7\frac{1}{2}$ per cent. in May (*i.e.*, in favour of the South African pound as compared with the English pound) to a discount of $5\frac{1}{2}$ per cent. in December. This decline was accentuated, in no slight degree, by the decision, in June of that year, to definitely place the currency of the Union on an inconvertible paper basis and retain the embargo on the export of specie for a number of years.

Exports.—The exports of the Union consist almost entirely of minerals and of agricultural and pastoral produce. The products of mines account for the greater proportion of our exports, although in recent years the proportion of farm produce has tended to increase in view of the rapid expansion of agricultural and the livestock industry, as illustrated in the following table :

Exports³ of Products of the Union (1910-1923).

Year.	Products of Mines.	Per- centage of Total.	Agricultural and Pastoral Produce.	Per- centage of Total.	Other Products.	Per- centage of Total.
	£	%	£	%	£	%
1910 ..	41,996,000	80·4	9,485,000	18·1	747,000	1·5
1913 ..	51,857,000	79·6	12,240,000	18·8	1,018,000	1·6
1919 ..	66,886,000	65·4	33,064,000	32·3	2,331,000	2·3
1921 ..	49,786,000	71·2	17,899,000	25·6	2,237,000	3·2
1923 ..	48,023,000	65·6	22,391,000	30·6	2,796,000	3·8

The principal mineral exports are gold and diamonds, followed by coal, copper, tin, silver, asbestos, corundum, etc.; the main agricultural and pastoral products are wool, hides and skins, maize, sugar, wattle bark and extract, mohair, ostrich feathers, and fruit, and on a small scale such produce as meat, cotton, wine, tobacco, eggs, butter, cheese, live cattle, and oats ; and, further, such other local products as preserved fish, whale oil, blasting compounds, confectionery and jams, leather and leather manufactures, cigars and cigarettes, etc., are exported overseas or to neighbouring territories.

³ *i.e.* excluding imports re-exported.

The following table shows the value of the principal exports of the Union over a series of years :

Principal Exports of the Union (1910-1923).

Article.	Average 1910-14.	Average 1915-18.	1919.	1923.
	£	£	£	£
Gold	32,688,000	38,247,000	51,560,000	38,991,000
Wool	4,494,000	7,613,000	17,919,000	12,388,000
Diamonds	8,689,000	5,029,000	11,547,000	7,207,000
Hides and Skins ..	1,556,000	2,232,000	4,985,000	2,486,000
Maize	409,000	1,157,000	1,145,000	3,084,000
Coal (cargo)	157,000	472,000	929,000	1,191,000
Mohair	900,000	931,000	1,654,000	948,000
Ostrich Feathers ..	2,286,000	373,000	1,646,000	340,000
Wattle Bark & Extract	278,000	288,000	602,000	925,000
Sugar	9,000	53,000	437,000	656,000
Fruit (fresh & dried) ..	58,000	86,000	228,000	550,000

Imports.—Our imports consist primarily of manufactured articles, representing on an average about 74 per cent. of the total imports and being composed mainly of clothing and other textile goods, machinery and other metal manufactures, oils, furniture and other household articles. Other items of our import trade are articles of food and drink (wheat, flour, coffee, tea, rice, wine and brandy, condensed milk, confectionery and other sugar products, preserved fish, etc.), raw materials for manufacture (iron and steel, wood, glycerine, nitrates, wax, unmanufactured leather, etc.), and agricultural requisites (implements, fertilisers, sheep dip, etc.).

The following table shows the value of the various classes of imports since the Union :

Imports of the Union (1910-1923).

Year.	Manu- factured Articles.	Per- centage of Total.	Food and Drink.	Raw Materials for Manu- facture.	Agricul- tural Requisites.
	£	%	£	£	£
1910-14 (average)	26,925,000	71	6,446,000	3,607,000	680,000
1915-18 (average)	29,532,000	74	5,470,000	3,498,000	632,000
1919	39,352,000	77	4,852,000	4,434,000	1,017,000
1922	40,598,000	79	5,598,000	3,662,000	609,000

Trade with British and Foreign Countries.—The import and export trade of the Union is carried on mainly with the United Kingdom, or with other countries *via* the United Kingdom. On an average about 75 per cent. of our exports are shipped to England, and about 57 per cent. of our imports are received from England, directly or indirectly. Although improvements have been made in recent years with regard to direct shipments to the country of final destination or from the country of origin, an appreciable part of our trade with Continental countries, United States of America and Canada is still conducted *via* London, Southampton, Liverpool, or other English ports.

Since 1914 there has been a distinct tendency toward the increase of trade with countries outside the British Empire, as illustrated by the tables on the following page. In 1910 over 88 per cent. of our exports went to the United Kingdom as compared with 6.7 per cent. to foreign countries, whereas in 1922 the proportions were 73 per cent. and 15.7 per cent. respectively. Similarly, in 1910 over 60 per cent. of our imports came from the United Kingdom, declining to 53.9 per cent. in 1918 and 56.5 in 1922, as compared with an increase of imports from foreign countries from 28.9 to 31.6 per cent. Between 1916 and 1920 our trade with the United States and Japan increased enormously, but since 1920 there has been a great decline, and other foreign countries have come to the forefront, such as Germany, France, Belgium and Holland.

At present our imports from countries outside the British Empire come mainly from the United States and Germany, followed by Sweden, France, Japan, Belgium, Brazil, Switzerland, Holland and the Dutch East Indies; and our exports to foreign countries go principally to Germany, United States, France, Belgium, Holland, etc.

Imports into the Union from British and Foreign Countries.

Year.	From United Kingdom.	Per- centage of Total.	From Other British Territories.	Per- centage of Total.	From Foreign Countries.	Per- centage of Total.
	£	%	£	%	£	%
1910 ..	22,340,000	60.8	3,768,000	10.3	10,619,000	28.9
1913 ..	23,746,000	56.8	5,013,000	12.0	13,070,000	31.2
1918 ..	26,691,000	53.9	7,581,000	15.3	15,216,000	30.8
1922 ..	29,023,000	56.5	6,137,000	11.9	16,254,000	31.6

Exports⁴ from the Union to British and Foreign Countries.

Year.	To United Kingdom.	Per- centage of Total.	To Other British Territories.	Per- centage of Total.	To Foreign Countries.	Per- centage of Total.
	£	%	£	%	£	%
1910 ..	47,490,000	88·6	1,474,000	2·7	3,614,000	6·7
1913 ..	59,026,000	88·7	2,034,000	3·0	4,295,000	6·5
1918 ..	51,022,000	72·2	5,563,000	7·9	11,483,000	16·3
1922 ..	47,518,000	73·1	4,972,000	7·7	10,188,000	15·7

⁴ Including ships' stores, which represent from 2 to 4 per cent. of the total exports.

CHAPTER 13.

TRANSPORTATION AND COMMUNICATION.

(1) SHIPPING AND HARBOURS.

Cape as Provision Station.—During more than a century and a half of its occupation by Europeans the Cape was of unusual commercial importance as an intermediate refreshment station on the route to India and the East. Even prior to 1652 it had occasionally served as a place of refreshment for Dutch and English ships, and the Dutch East India Company decided to establish a provision station at the Cape in 1652 with a view to developing and expanding its profitable trade with the East, which was endangered and confined within certain limits by the ravages of scurvy and other ailments resulting from the long and slow voyages without an adequate supply of fresh water, vegetables and meat. Accordingly the Cape was used as a means of minimising the death-rate from scurvy and other diseases and thereby enabling the Eastern trade and shipping to be developed and carried on successfully on a large scale. In this way the overseas trade of Western Europe in the 17th and 18th centuries came to be, in a great measure, dependent upon the Cape; and ships called at the Cape, not for the sake of its foreign trade which was of very limited scope in consequence of numerous trade restrictions, but on their way to or from the East.

Landing Facilities.—Throughout the period of the Company's administration (1652-1795), and for a number of years under British rule, the Cape was used primarily as a half-way house for the purpose of provisioning the outward or homeward bound ships of the Dutch or English East India Company and, to a certain extent, of other trading companies and countries. These sailing vessels, known as East Indiamen, anchored in Table Bay after weeks of hardship at sea, and small boats were employed in connection with the landing of passengers and goods or the taking in of water, provisions, and other produce. This was facilitated by a wooden jetty which had been constructed by the Company, at an early stage already, on the present site of the railway sheds and the network of rails near the Castle walls. This jetty was the primitive landing place of the Cape and the centre of the commercial activities of Cape Town for a long period of years. It was in a certain sense the gateway of the Cape, being within a few yards of

the "great gateway," guarded by sentries, which led through the Castle to the country beyond.

From time to time a number of shipwrecks had taken place in Table Bay as a result of severe storms, and as far back as 1729 the Company had authorised a survey of the Bay. An expensive mole was suggested, and 14 years later an attempt at a breakwater was made. Starting from Mouille Point, 350 feet of this breakwater were actually built with the help of the carts of farmers who came to Cape Town with their produce, but the enterprise languished and was finally abandoned. About 1820 the formation of a mole to protect the ships at anchor in Table Bay from the swell of the north-west winds was again seriously discussed and planned. The construction of a breakwater, however, was only undertaken in earnest in 1860.

The old wooden jetty remained the only available landing place of the Cape until the "Great Gale of 1831," when six ships were driven ashore and the commercial community decided to protect themselves. As a temporary measure several dwarf jetties, including a stone pier, were gradually erected until proper docks could be constructed. In 1850 the "central jetty" at the foot of Adderley Street, which has since been displaced by the Pier, was opened for the trade of the port; and the wooden jetty, which had come to be in a very dilapidated state, was demolished in 1853. Finally, in 1860, a commencement was made with the construction of harbour works and docks in Table Bay, and gradually land was reclaimed from the sea.

Trade and Shipping.—After 1815 the foreign trade of the Cape Colony began to develop more rapidly, and a large number of ships called at the Cape not merely for the purpose of taking in provisions and water, but also doing a carrying trade for the Colony. For example, the tonnage of vessels which arrived in Table Bay during the year 1821, exclusive of men-of-war, amounted to 56,000 tons, of which 25,000 tons were represented by vessels calling for refreshments only, 16,000 by those calling for the purpose of landing a part of the cargo and 15,000 by those landing the whole of the cargo. The Cape now became less dependent upon the victualling of the passing ships and more dependent upon shipping facilities for its growing import and export trade; and as regards their Eastern trade the countries of Western Europe again became less dependent upon the Cape as the "Tavern of the Seas," in view of the fact that the general use of lime-juice to combat scurvy had rendered it no longer absolutely essential to call for the taking in of fresh meat and vegetables. The change from sailing vessels to steamships also affected the victualling trade adversely, until coal

seams were discovered in the Transvaal and Natal, when ships called at South African ports to fill their bunkers. The opening of the Suez Canal in 1869 did indeed divert from the Cape a number of ships on the Indian trade route, but the rapid development of foreign trade after 1870 more than counteracted this loss.

Development of Overseas Communication.—In 1815 a mail packet service was established between England and the Cape. Fast sailing vessels were employed by the Imperial Government to leave London every month for the conveyance of mails, passengers and light cargo to the Cape, Mauritius and India. The first mail packet took 115 days for the voyage from London to Cape Town.

The first steamship that was placed on the route from England to India arrived in Table Bay in October, 1825, after a voyage of 58 days. As a result of the increasing use of steam as a propelling power, communication with Europe became much more easy and rapid than it had been in the early years of the 19th century. During the forties the steamships generally took from 40 to 50 days for the voyage from England. By 1854 a steamship put into Table Bay regularly every month from England and from India.

In the meantime an appreciable coasting trade had been developed between Cape Town and Port Elizabeth, Durban and Mossel Bay. With the exception of the small steamship service between Cape Town and Port Elizabeth, which was instituted in 1838 by the Cape of Good Hope Steam Navigation Company, the coasting trade was carried on in light sailing vessels.

In 1857 the Union Steamship Company entered into a contract with the Imperial Government for a monthly mail service from Southampton to Cape Town for a period of 5 years, at an annual subsidy of £30,000. The voyage to or from England was to be made in 42 days, and the first mail steamer of the Company to put into Table Bay had the minimum tonnage of 530 tons.¹ The contract was renewed from time to time, and as the Company acquired new steamers, the tonnage and the engine power were increased in accordance with the growing requirements of the mail, passenger and cargo traffic. In 1865 the mail service was extended to Durban, and in 1868 a semi-monthly service was instituted.

In 1872 the Castle Steamship Company also opened a steamship service between Southampton and Cape Town. When the postal contract had to be renewed again in 1876, a weekly mail service was inaugurated and divided equally between the Union and Castle

¹ In 1922 the Union-Castle Line acquired two mail steamers of over 19,000 tons, viz., the "Windsor Castle" and the "Arundel Castle."

Steamship Companies. By 1893 already it was stipulated in the contract that the voyage to or from Southampton was to be completed within 19 days. In 1900 the two Companies were amalgamated under the name of the Union-Castle Royal Mail Steamship Company, which still holds the mail contract and now receives an annual subsidy of £150,000 in consideration of a weekly mail service between Southampton and Cape Town, the maximum duration of the voyage to be 16 days 15 hours in each direction, and an additional subsidy of £21,000 in consideration of the mail steamers commencing and terminating their voyages at Durban instead of Cape Town.

In the meantime, as the foreign trade of South Africa had developed and expanded, a number of other steamship companies had established regular passenger and freight services with all the important countries in the world. After 1830 the rapidly growing export trade in wool, hides and skins, etc., created an increasing demand for shipping facilities; and especially after the opening of the diamond and gold mines and the consequent expansion of trade, there was a considerable development of shipping facilities. At present the Union of South Africa has regular shipping communication with Great Britain, United States of America, South America, Germany, Holland, India, the Far East, Canada, Australia, etc., through the following steamship lines: White Star Line, Ellerman-Bucknall Line, Peninsula and Oriental Line, Natal Direct Line, Clan Line, Woermann Line, German East Africa Line, Hamburg-Bremen-South Africa Line, Holland-South Africa Line, Holland-East Africa Line, Nippon Yusen Kaisha Line, Harrison Line, Mallory Transport Line, etc.

Shipping Statistics.—The following table shows the development of shipping in the Cape and Natal ports since 1826 and 1862 respectively:—

Number and Tonnage of Ships (Oversea and Coastwise) entered Inwards at Cape and Natal Ports (1826-1922).

Year.	Cape.		Natal.		Union.	
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.
1826	151	47,000	—	—	151	47,000
1842	604	166,000	—	—	604	166,000
1862	1,044	363,000	96	23,000	1,140	386,000
1882	2,328	3,059,000	397	245,000	2,725	3,304,000
1898	2,333	6,710,000	690	1,265,000	3,023	7,975,000
1910	2,578	7,274,000	1,589	4,221,000	4,164	11,495,000
1922	2,754	7,818,000	1,173	3,700,000	3,927	11,518,000

Harbours and Docks.—In 1860 already a beginning had been made with the construction of the Cape Town harbour works in Table Bay, which had always afforded an excellent natural anchorage. As originally planned, the harbour works consisted of the breakwater and the inner basin. The inner basin was formally opened in 1870, on the eve of a considerable expansion of trade and shipping. After a number of years increased dock accommodation was rendered necessary by the rapid growth of trade, and an outer harbour was added, which was formed by a second pier carried parallel to the breakwater from a point to the south of the inner basin. Provision was also made for wharves, warehouses, a graving dock and patent slip for overhauling or repair, landing appliances and other essentials of a modern dock equipment.

The construction of harbour works at Port Elizabeth, on the shores of Algoa Bay, which provides an open but safe anchorage, was called for in consequence of the remarkable development, after 1860, of its export trade in wool, hides and skins, mohair and ostrich feathers, and the accompanying import trade. There is no artificial harbour, but three landing jetties have been constructed which extend into the bay to a distance of from 1,160 to 1,460 feet. It is alongside these jetties, which are equipped with cranes and other appliances, that ships load or discharge their cargo.

East London is a river harbour. The mouth of the Buffalo River, at which the town is situated, was originally blocked by a bar of sand, which prevented the passage of large ships. Harbour works, comprising a sheltering breakwater and two training walls, together with the continuous employment of three powerful dredgers, have rendered it possible to maintain a depth of water over the bar of 19 feet at low water tide throughout the year, with the result that ships of a gross tonnage of 8,000 tons can enter the river and anchor alongside the wharves.

Durban, as the seaport of Natal, has been a place of great commercial importance since the opening of the Rand gold mines. The harbour consists of a landlocked tidal lagoon or basin, the entrance of which, the Bluff Channel, was originally blocked by a shifting bar of sand. During the period from 1854 to 1881 the average depth of the channel was 6 feet 5 inches. Then the Natal Harbour Board carried out a series of engineering works with the object of removing this bar and maintaining a sufficient depth of water for the entrance and exit of large vessels. At present the harbour can be entered at all times by the largest of the ocean-going steamships which call at South African ports.

These four ports, viz., Cape Town, Port Elizabeth and East London in the Cape Province, and Durban in Natal, are the main

ports of the Union. On the whole they are fairly well supplied with wharves, warehouses and all modern appliances necessary for the accommodation of shipping and the prompt and economic loading and discharging of cargoes; but the growth of the import trade and the recent development of the export trade in agricultural as well as pastoral products render the extension and improvement of our harbour works highly necessary in the near future. The harbour works, especially those at Cape Town and Durban, were originally planned and constructed for the import rather than the export trade, on the assumption that the traffic would consist mainly of imported goods, which was the case until recent years. Our export was, at the time, composed primarily of gold and diamonds, which are of great value but of small bulk. During the past 15 years a remarkable change has taken place. The export of agricultural and pastoral products has advanced rapidly and is now conducted on a large scale. Such products, again, are very bulky in proportion to their value. In due course the harbour works, warehouses, cold storage accommodation, etc., will have to be extended, modernised and fully adapted to the changed traffic.

Of the less important ports of the Union the largest is Mossel Bay, which is midway between Cape Town and Port Elizabeth. Other ports of minor significance are Port Nolloth, the port of the Cape copper mines, Port Alfred at the Mouth of the Kowie River, Port St. John's, the large estuary at the mouth of the St. John's River, and Simonstown, which serves mainly as a naval station.

Harbour Statistics.—The following table shows the relative importance of the main ports of the Union and the relation between the tonnage of cargo landed and shipped:—

Tonnage of Cargo Landed and Shipped at Union Ports (1921-22).

Heading.	Durban.	Cape Town.	Port Elizabeth.	East London.	Total for Union.
	Tons.	Tons.	Tons.	Tons.	Tons.
Cargo Landed ..	590,000	441,000	188,000	150,000	1,419,000
„ Shipped ..	2,842,000	462,000	245,000	224,000	3,847,000
„ Transhipped	3,000	2,000	1,000	—	7,000
Total tons ..	3,435,000	905,000	434,000	374,000	5,273,000

(2) ROADS AND BRIDGES.

Prior to Lord Somerset's time (1814-26) there had been no properly constructed roads in the Cape Colony. The only available means of internal transport were ox-wagons over roads which were

merely trails or beaten tracks that had developed into rough wagon roads. Rivers and mountain ranges, moreover, proved to be formidable obstacles, as no bridges or mountain passes had been constructed as yet. This was considerably aggravated by the fact that, owing to the peculiar physical structure of the country, the rivers were not suitable for navigation. The whole of the internal trade had to be handled by the expensive and cumbersome method of transportation by ox-wagons over rough roads.

The lack of adequate transport facilities had been a serious deterrent to the development of agriculture as well as of other industries in the Colony. Accordingly Lord Somerset authorised the construction of a number of public roads, which proved to be of great service to the colonists, especially that which opened direct communication between Cape Town and Worcester. In 1824 a road was also opened through the first range of mountains at the pass behind French Hoek. It only cost £8,000 as soldiers were used for labour.

Sir Lowry Cole was likewise desirous of improving the means of communication between different parts of the Colony, but no money was available for the purpose. However, he succeeded in securing the construction of Sir Lowry's Pass, over the Hottentots Holland mountains, in 1830 at a cost of £7,000.

In the Eastern Province attention was now also being given to the improvement of roads. In 1840 the so-called "Queen's Road," between Grahamstown and Fort Beaufort, was undertaken; and the Fish and Kat Rivers were spanned by substantial stone bridges.

In order to offset the disadvantages resulting from the absence of navigable waterways and railways, it was doubly essential to have a good system of roads. This was more fully realised now in view of the greater need for inter-communication between the coastal regions and the interior. Accordingly, in 1844 the construction of a series of public highways, bridges, and mountain passes was set on foot. The Colonial Secretary (Montagu) devised the construction of main lines of communication throughout the Colony, and provided for a Central Board of Commissioners of Public Roads. The Board was granted a sum of money for roads and bridges by the Legislative Council from time to time, and was moreover empowered to levy rates not exceeding a penny in the £ of the value of landed property, to collect tolls, and to employ convict labour. All the able-bodied convicts were concentrated at two stations, one in the south-western districts and the other in the eastern districts.

The hard road over the Cape Flats was completed as far as Klapmuts by the end of 1845, and in 1846 a branch road was made to Stellenbosch. In 1845 the so-called Montagu Pass over Cradock's

Kloof, which was formerly a mere track over a rugged rocky ledge, with a steep precipice on one side of the mountain between George and Langekloof, was opened. In that year also the completion of Mitchell's Pass gave easy access to the Bokkeveld and the Karroo. In 1853 Bain's Kloof was opened, and in the following years a number of other mountain passes and highways were constructed. Bridges were also built over many of the rivers on the main highways of traffic.

The rise of the mining industry opened up a wide field for transport-riding, which again created an urgent demand for the construction or improvement of roads from the railway termini in the Cape and Natal to the diamond and gold fields. Then the rapid development of agriculture in the south-western and eastern districts of the Cape, the south-western portion of the Transvaal, the north-east of the O.F.S. and the central and coastal districts of Natal necessitated the extension of public roads in those areas. A series of highways spreading all over South Africa were undertaken over a long period of years; mountain passes were opened over the Drakensberg and other mountain ranges; and the Orange River, the Vaal, the Gouritz, etc., were spanned with handsome structures.

This process of gradually improving and extending the internal means of communication was continued throughout, with occasional bursts of activity in times of unusual prosperity, so that by 1922 there were 60,000 miles of public roads and 622 bridges in the Union, as shown in the following table:—

Mileage of Roads and Number of Bridges² in Provinces of Union (1921-1922).

Heading.	Cape.	Transvaal.	O.F.S.	Natal.	Union.
Roads (miles) . .	33,000	12,000	9,000	6,000	60,000
Bridges (number)	238	118	55	211	622

(3) RAILWAYS.

Private Enterprise.—The first railway in South Africa was projected in the Cape Colony during the Governorship of Sir George Grey and undertaken by a private company, known as the Cape Town Railway and Dock Company, which had obtained from the Cape Government the necessary authority to construct a railway from Cape Town *via* Stellenbosch to Wellington, a distance of 57 miles, and from Salt River to Wynberg, a distance of six miles.

² Excluding those under control of municipalities and village management boards.

In April, 1859, a beginning was made with the construction of the line to Wellington, which was completed by the end of 1863; and in December, 1864, the railway to Wynberg was opened for public traffic.

It was, however, in Natal where the first railway in South Africa was opened for public traffic in 1860, viz., that from Point to Durban, a distance of two miles. This railway was likewise built by private enterprise under the authority of a private law for the incorporation of the Natal Railway Company, passed in 1859.

In 1874 it was extended to the Umgeni River, a further distance of four miles, in order to cope with the sugar, maize, coffee and arrow-root traffic developing in that locality.

Thus, over a period of 15 years (1859-74) only 69 miles of railway were constructed in the sub-continent of Africa, which is indicative of the rate of progress in those days. Railway construction in South Africa had been initiated by private enterprise and undertaken for the purpose of giving access to, and developing, the rural areas in the vicinity of the two earliest and largest settlements, viz., Cape Town and Durban; and the building of railways would have proceeded to follow the original course of settlement and the development of agriculture in the southern coastal areas of the Cape, from west to east, if the mining industry had not come to be the centre of economic activity and to govern the development of economic institutions in South Africa.

State Purchase of Railways.—The rise of the diamond industry at Kimberley, in the heart of the interior of South Africa, created an urgent need of efficient means of transportation and communication between the interior and the ports. The railway had been extended only as far as Wellington, and the construction of 600 miles of railway from Wellington to Kimberley was beyond private enterprise under the conditions of the time. Accordingly, owing to the lack of private initiative and capital and the need of transport facilities, the Cape Government decided to negotiate the purchase of the private lines in existence and to undertake the building of the railway to Kimberley, being encouraged to do so by the increase in trade and revenue arising out of the exploitation of the diamond fields.

Negotiations for the purchase of the railways in the Cape were entered into, and the Government was authorised by Parliament to raise a loan not exceeding £780,000 for the purchase. In 1873, on the instructions of the Board of Directors in London, the two lines in operation in that Colony were placed under the direction of the Commissioner of Public Works. This was the commencement of State ownership of railways in South Africa. In 1876 the

Natal Government, following the example of the Cape, purchased the Point—Durban—Umgeni line for £40,000.

Railway Development under State Control.—In 1874 legislative authority was obtained by the Cape Government for carrying on railway construction on a large scale from the three principal seaports of the Colony, viz., Cape Town, Port Elizabeth and East London. The Government immediately embarked upon its programme of railway development, and in the course of the following ten years railway lines were carried into the interior from the coastal centres, converging towards the diamond fields and meeting each other at De Aar Junction, near the Orange River. From this point the railway was extended northwards direct to the goal of Kimberley, which was reached in 1885 and brought into direct communication with the coastal areas and the outer world through the ports of Cape Town, Port Elizabeth and East London. In this way did the diamond industry stimulate railway construction and influence the whole course of railway development and the planning of main lines in South Africa.

In the meantime the Natal Government had also decided to undertake the development of railway transportation and built a railway to connect Durban, the port, with Pietermaritzburg, the seat of Government; and, in addition, two lines had been extended into the north and south of the Colony, both radiating from Durban. In the Orange Free State and South African Republic, however, no railways had been constructed yet.

Influence of Gold Industry.—The discovery and exploitation of the gold fields on the Witwatersrand, beginning in 1886, likewise created an urgent need of cheaper and better methods of transportation of goods and passengers between the coast and the Rand. In the Cape Colony the railway had been extended from the coast into the interior as far as Kimberley, and in Natal as far as Pietermaritzburg, and from these railway termini, for a distance of several hundred miles to the Rand, the ox-wagon was the only available means of transportation of mining machinery and other mining requisites, building materials, and various necessities of life. The result was considerable activity in the construction of railways with a view to gaining as large a share as possible of the profits to be earned by transportation.

The development of the gold industry and the rapid increase of the population on the Rand opened up a profitable field for railway and commercial enterprise. The railways and seaports of the Cape and Natal were keen competitors for the business and traffic thus created, in consequence of which inter-colonial rivalry in respect of railway extensions, customs tariffs and rebate regulations was

brought into being. The Cape Government was the first to take action in the matter. To provide for the extension of its railway to the Rand through the Orange Free State, negotiations were entered into with that Republic and an arrangement was made, in terms of a Convention concluded in 1889, by which the Cape Government undertook to construct and operate a line connecting with its system of railways at Norvals Pont and running through the O.F.S. to Vereeniging on the Transvaal border. The portion of the line in O.F.S. territory, *i.e.* from the Orange River to the Vaal River, was to be operated by the Cape Railway Department under certain conditions and rates laid down in schedules to the Convention, until the O.F.S. was prepared to acquire the line by purchase.

In the meantime a commencement had also been made with the construction of railways in the Transvaal. In 1885 already the Republican Government had obtained from the Volksraad the authority to grant a concession for the building of a railway from the border of Portuguese East Africa to Pretoria. In 1887 the Netherlands South African Railway Company was formed for this purpose in Amsterdam, and in the same year the work was begun at Komati Poort on the Portuguese border. In view of the immediate need of transport facilities for the conveyance of coal from the coal mines at Boksburg to the gold mines which had been opened in various parts of the Witwatersrand, authority was also granted for the building of a railway along the gold reef, from Boksburg to Krugersdorp. The first section of this line, *i.e.* from Boksburg to Johannesburg, was opened for public traffic in 1890; and by February, 1891, the whole line, which was at first known as the "Rand tram," was completed.

The Cape railway, which was being extended through the O.F.S., was now nearing the Transvaal border. In order to reach the Rand, an agreement was concluded between the Cape Government and the Netherlands Company, which had acquired the exclusive right of railway construction and operation within the Republic subject to the sanction and authority of the Government, for the completion of the railway from the Vaal River to Johannesburg and Pretoria, a distance of about 90 miles. The rights of operation and traffic arrangements over this line were granted to the Cape Railway Department until December, 1894, in return for an advance of funds at a fair rate of interest. By the end of 1892 direct communication was established between the Cape ports and the Rand.

The railway from Pretoria to Komati Poort, connecting with the Portuguese line from there to Lourenco Marques in Delagoa Bay, was completed by the end of 1894, whereby the Rand was also brought into direct communication with the port of Lourenco

Marques. The Natal Government had also taken action and entered into an agreement with the Transvaal Government and the Netherlands Company which provided for the extension of the Natal main line as far as Heidelberg and its continuation by the Netherlands Company as far as Johannesburg. The line was fully completed by the end of 1895, whereby Durban was placed on a level with the Cape ports and Delagoa Bay.

In this way, within less than ten years of the proclamation of the Rand as a public goldfield, three railway systems were competing for the profits to be earned by transporting goods and passengers to and from the gold city. The Rand had become the centre of economic activity in South Africa and the dominating factor in the economic policy of South African territories. The mining industry—first the diamond and then the gold industry—had given an undue impetus to railway enterprise in South Africa and influenced the whole course of railway development, all the important main lines from the principal seaports of South Africa converging towards the diamond city, Kimberley, and the gold city, Johannesburg.

However, although up to this time railway construction had been carried on primarily for the purpose of exploiting the wealth of the diamond and gold mines, the attention of the State was now drawn to the building of branch lines as feeders to the main lines, and of subsidiary main lines for the development of other industries and other kinds of traffic, as the high profits which were earned at first were gradually diminishing with severe railway competition and the slackening of mining development.

Cape Colony.—Prior to the Boer War the Cape Government had been concerned mainly with the construction of main lines and the development of main line traffic. In the meantime, however, a number of private companies had been established, under concession and subsidy from Parliament, for the purpose of building branch lines. For example, in 1883 the Cape Central Railway (now known as the New Cape Central Railways) was authorised as a subsidised line by Act of Parliament. The first section of the line, from Worcester to Ashton, was opened for traffic in 1887, and that from Ashton to Swellendam in 1897; and it was not until 1906 that the line was extended as far as Mossel Bay. This line of 205 miles was constructed at a total cost of about £1,700,000, to which the Cape Government contributed £386,500 by way of subsidy. It is still a privately-owned line, the largest in the Union. Moreover, the Cape Copper Company built a line from its copper mines at O'okiep to Port Nolloth, a distance of 92 miles; the Grahamstown and Port Alfred Railway Company one from

Grahamstown to Port Alfred (taken over by the Union Government in 1913), the Indwe Railway and Coal Company one from the coal mines at Indwe to Sterkstroom, on the Cape Government Railways, (taken over by the Cape Government in 1900), etc.

After the Boer War, however, the Cape Government undertook a comprehensive scheme of railway construction and the general improvement of railway equipment and operating efficiency. A number of branch and subsidiary main lines were built with a view to developing the agricultural potentialities of the Colony. Owing to the backward state of the country through which some of these feeders ran, economy in construction was highly necessary, whereupon the Cape Railway Department decided upon building lines of two feet gauge,³ the first of such lines, that from Kalabas Kraal to Hopefield, being opened in 1903.

Altogether 1,194 miles of new railway lines were opened by the Cape Government between 1901 and 1910, whereas during the previous nine years (1892-1901) the mileage of Government railways had been increased by 244 miles only, i.e. from 1,892 to 2,136 miles.

Natal.—In Natal, also, after the Boer War, the Government adopted an active policy of railway extension and improvement and resorted to the two feet gauge in the case of branch lines in the sparsely-populated and semi-developed areas. The mileage of Government railways in operation was increased from 591 miles in 1901 to 999 in 1910.

Transvaal and Orange Free State.—After the War the railways of the two new Crown Colonies (the former republics) were united and administered as a joint concern by the Inter-Colonial Council under the name of the Central South African Railways. The railway lines under the control of the Netherlands Company in the Transvaal were purchased by the Crown Colony Administration and combined with the State railways in the O.F.S., which had been originally constructed and operated by the Cape Government but taken over the O.F.S. Government in 1897—a contingency provided for in the Convention.

The development of railways was regarded by the Crown Colony Government as a necessary adjunct to the economic reconstruction of the conquered territories. A number of new lines were constructed with a view to bringing the main agricultural districts in

³ The standard gauge in South Africa is 3 feet 6 inches. The first 69 miles of private railways built in South Africa had a gauge of 4 feet 8½ inches, the normal gauge of railways in England; but when the Cape and Natal Governments embarked upon railway enterprise, the 3 feet 6 inches gauge was created the standard gauge in view of the necessity for the utmost economy in the construction of Colonial railways, and was adopted also by the Transvaal and the O.F.S.

both colonies into direct railway communication with the Rand and other profitable markets. By 1907 the railway mileage had been extended to 2,405 miles, as compared with 1,331 in 1902, and a considerable improvement had been brought about in the permanent way, the rolling-stock resources, the general equipment, and the efficiency of administration and operation. This development was continued under Responsible Government (1907-1910).

Rhodesia.—In 1888-9 Rhodes had founded the British South Africa Company for the purpose of developing the territory north of the Limpopo River, now known as Rhodesia. At this time the main line of the Cape Government Railways was being extended from Kimberley to a point on the north bank of the Vaal River. This line was carried on to Vryburg by the British South Africa Company and then purchased by the Cape Government. The line was continued by the Company, reaching Mafeking in 1894 and Bulawayo in 1897, a distance of 1,362 miles from Cape Town. The whole of this line is now operated by the Union Railway Department.

Railway Development (1910-24).—All the railways belonging to the four Colonies at the establishment of the Union were transferred to the Union Government and were to be administered, in accordance with the policy laid down in the Union Constitution, in the interests of the economic development of South Africa as a whole. The railways were to be operated in accordance with business principles, due regard being had to agricultural and industrial development within the Union and to the settlement of an agricultural and industrial population in the inland portions of all Provinces of the Union. With a view to facilitating the achievement of these aims, the railways were no longer to be used for purposes of taxation, as had been the case in all four Colonies prior to the Union. The total earnings were to be no more than sufficient to meet all necessary expenses for operation, maintenance, depreciation, and interest on capital. Accordingly, the railway rates and fares were substantially reduced and preferential rates instituted in respect of South African produce; and an extensive programme of railway construction was embarked upon, special attention being given to branch lines for the purpose of opening up promising agricultural and pastoral areas.

During the first six years of the Union (1910-16) more than 2,000 miles of new railway lines were opened for traffic by the Union Government, and the private line from Grahamstown to Port Alfred was taken over by the Government in 1913. The railway mileage under State ownership in the Union was increased from 7,039 miles on May 31, 1910, to 9,457 on December 31, 1916—an increase of 2,418 miles or 34.3 per cent. in $6\frac{1}{2}$ years. Then, as a result of the

abnormal conditions created by the War, the work of railway extension was almost entirely stopped for a number of years, the mileage of Government railways in operation increasing merely from 9,457 miles in 1916 to 9,656 in 1922. In the latter year, however, it was decided to resume the development of railway transportation, and authority was obtained from Parliament for the construction of 22 new railway lines, of which 15 were designated as agricultural lines, *i.e.*, constructed, equipped and maintained primarily for the conveyance of agricultural produce. These lines comprise 851 miles of railway, and the cost of construction has been estimated at about £4 million.

Stages of Railway Construction in South Africa.—The following table shows the progress, during the six decades which have elapsed since the opening of the first railway, in the construction of the railways now owned by the Union Government and situated within the Union of South Africa :—

State Railways in Union of South Africa.

Years.	Miles.
1860-69	68
1870-79	781
1880-89	1,065
1890-99	2,046
1900-09	2,977
1910-19	2,605
1920—March, 1924	233
Total ..	9,775

In addition, there are 497 miles of private railways within the Union, making a total of 10,272 miles for the Union on March 31, 1924.

Moreover, the Union Railway Department is now responsible for the control and operation of the railway system in the South-West Africa Protectorate, comprising 1,331 miles of railway, and operates the section of the Rhodesia Railways from Vryburg to Bulawayo. Altogether, the Union Department of Railways was responsible for the operation of 11,747 miles of railway in South Africa.

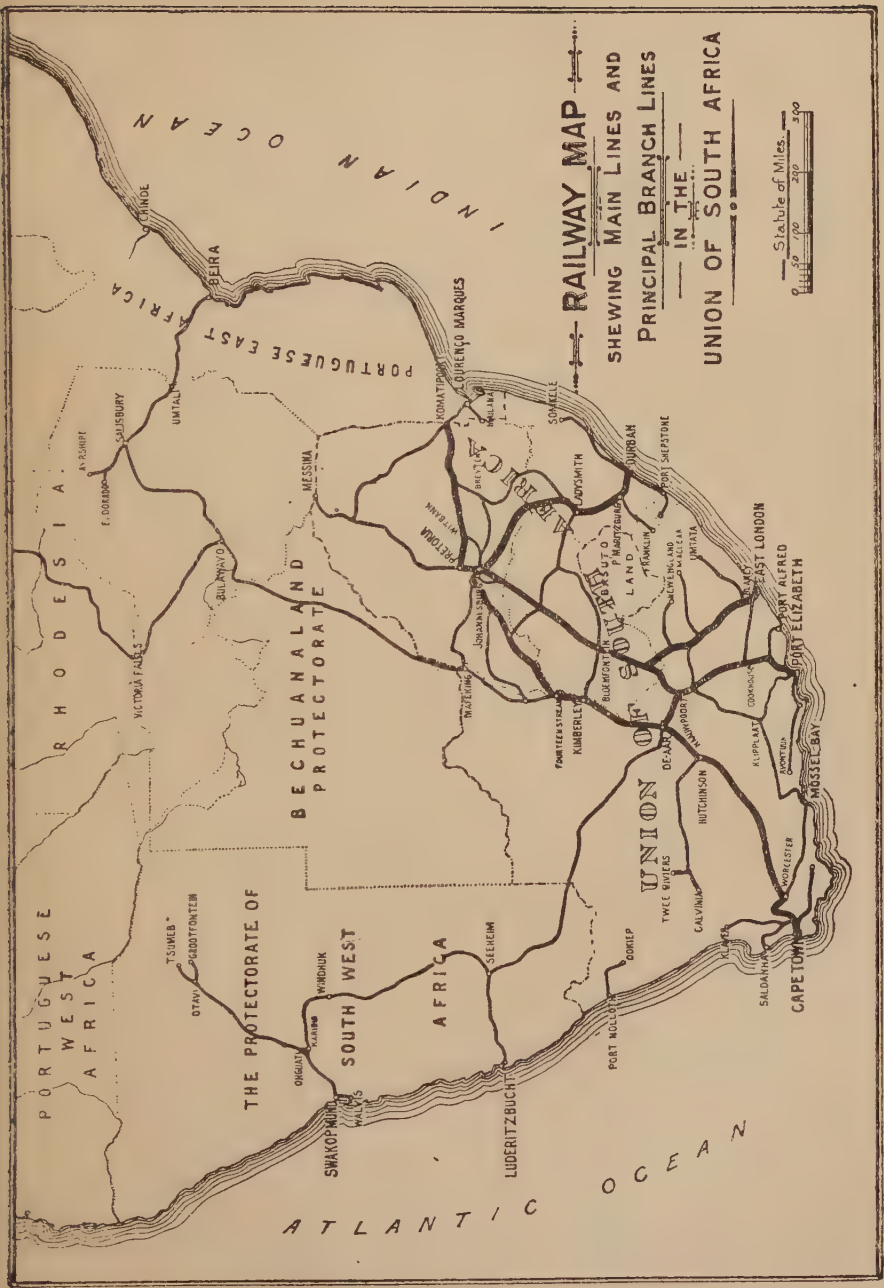
Conclusion.—Thus, the development of railway transportation in South Africa was stimulated and influenced, first, by the opening of the diamond mines at Kimberley ; secondly, by the exploitation of the extensive goldfields on the Witwatersrand ; and, thirdly,

by the realisation of the agricultural and pastoral possibilities of the country. It is only during the last 20 or 25 years that the State has devoted any considerable attention to the development of agriculture and stock farming by means of railway facilities. A great deal has already been done, but there is still much room for expansion and improvement. There are large potential areas in the Union well adapted for agricultural or pastoral purposes, where the lack of adequate railway transport is the most important limiting factor.

On account of the peculiar physical and economic conditions of South Africa, the railways constitute an economic factor of exceptional importance. In a sparsely-populated country of such great extent the towns and villages are naturally separated by long distances. The principal industrial centre, Johannesburg, is situated in the interior, 482 miles from Durban and 957 miles from Cape Town. Kimberley is 647 miles by rail from Cape Town and 310 miles from Johannesburg. Other urban centres, such as Pretoria and Bloemfontein, are also located several hundred miles from the coast or from other large industrial or commercial centres. This situation is aggravated by the fact that the physical structure of the country renders the rivers which are few and comparatively insignificant, practically useless for purposes of navigation, and prevents the construction of artificial waterways. In the absence of navigable rivers, lakes or canals, the Union of South Africa is mainly dependent upon railways for internal communication as well as for the development of the agricultural, pastoral, mineral and industrial resources ; and it is therefore of the utmost importance that the State, which has become responsible for the operation of practically all the railways in the Union, should provide a railway system and pursue a railway policy in compliance with the requirements of the economic structure of the country.

(4) POSTAL SERVICE.

Prior to the occupation of the Cape by the Dutch East India Company it was customary for captains of vessels trading to and from the East to place letters under conspicuous boulders on the shores of Table Bay, for collection and conveyance to their destinations by other vessels proceeding in the opposite direction. During the period of its occupation the Company carried on a sort of postal service, but it was almost entirely for the convenience, and in the interests, of the Company and its officials. As regards internal communication special riders were employed to convey placats or dispatches, and private letters as a favour, between Cape Town and the outlying settlements.

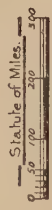


RAILWAY MAP

**SHEWING MAIN LINES AND
PRINCIPAL BRANCH LINES**

IN THE

UNION OF SOUTH AFRICA



The first regular postal communication in South Africa was established in 1806, when a service maintained by relays of Hottentot runners was introduced three times a week between Cape Town and Stellenbosch. This service was replaced by posts carried on horseback, and the system was further developed as occasion required by the establishment of branch post offices. In 1852 there were daily services from Cape Town to Simonstown, Stellenbosch and Paarl; mails three times a week from Cape Town to Grahamstown, and twice a week to other parts served by the Karroo route. In 1860 a penny post was introduced in Cape Town, and in the following year also in Port Elizabeth. By 1864 all places in the Cape Colony between which mails were carried twice daily had been granted the privilege of a penny post.

At this time Natal and the two Republics were beginning to develop postal services based, to a large extent, on the experience of the Cape. In due course the need for uniformity arose, and negotiations were set on foot.

The foundation of the South African Postal Union was laid in 1883 by means of separate Conventions entered into between several of the South African territories; and in 1898 the first South African Postal Union Convention came into force, thereby securing uniformity of practice and postage rates between the Cape, Natal, Transvaal and Orange Free State.

On the establishment of the Union of South Africa in 1910 there were about 2,100 post offices in operation in the four Colonies concerned. These were united and placed under the control of the Union Department of Posts and Telegraphs. By March 31, 1923, the number had advanced to 2,805, representing an increase of over 33 per cent. in 13 years.

Ocean Mail Service.—The first ocean mail contract, which came into force in 1876, provided for a regular weekly mail service, the passage between the United Kingdom and Cape Town to be completed in 26 days. In 1899 an agreement was concluded between the United Kingdom and the various Colonies and Republics in South Africa for the adoption of a scheme proposed by the Cape Government, under which the cost of the ocean mail service was borne proportionately by the participating British and South African Governments, on the basis of the use made of it by each. The Cape Government was responsible for the management of the South African ocean mail service on the basis of this agreement up to the date of Union.

After Union a new contract was entered into with the Union-Castle Steamship Company, in accordance with which a subsidy of £150,000 was to be paid, on the basis of usage, to the Company

by the contracting parties, viz., Great Britain, Union of South Africa, Southern Rhodesia and Bechuanaland Protectorate.

(5) TELEGRAPH SERVICE.

Telegraph communication was first established in South Africa in 1860 by private enterprise, as in the case of railways. In that year a telegraph line between Cape Town and Simonstown was opened for traffic by the Cape of Good Hope Telegraph Company, and in 1864 a line from Cape Town to Grahamstown was completed. In 1873 these lines were taken over by the Cape Government, which also undertook the further extension of the telegraph service. Likewise in Natal, under an Act of 1863, the Government was authorised to grant a concession to a company for the installation of a telegraph line between Durban and Pietermaritzburg, and subsequently took over the line in 1874.

In 1876 the line from Cape Town to the north was extended to Kimberley, and in 1879 Cape Colony and Natal were connected by telegraph. In that year telegraph offices were also opened at Pretoria and Standerton, in 1885 at Barberton, and in 1886-7 along the Witwatersrand.

The telegraph lines now encircle the whole of the Union and extend northwards to the Belgian Congo, westwards to the South-West Africa Protectorate, and eastwards to Mozambique. On March 31, 1923, there were 42,000 miles of telegraph wire and 9,300 miles of telegraph line operated by the Union Department of Posts and Telegraphs.

The Union of South Africa is connected by cable with Great Britain, Australia, South America, India and the Far East, the cables being owned by the Eastern Telegraph and its associated companies. Cable communication between Cape Town and Europe was first established in 1880 by means of the East Coast cable.

Moreover, wireless stations have been set up by the Department of Posts and Telegraphs at Slangkop and Port Elizabeth (Cape) and Durban (Natal); and a high-power station, capable of direct communication with England, is now being erected at Klipheувel (Cape) by the Marconi's Wireless Telegraph Company.

(6) TELEPHONE SERVICE.

In 1882 the first telephone exchange in South Africa was opened at Port Elizabeth, followed in 1884 by the opening of a similar exchange at Cape Town; and in quick succession exchanges were established at all the principal towns throughout the Cape, Natal, Transvaal and O.F.S. The telephones in South Africa are likewise under Government control.

In the case of telephones the development since the date of Union has been extraordinary. The mileage of telephone wire was increased from 46,000 miles in 1910 to 127,000 in 1918 and 168,000 in March, 1923 ; and the number of telephone instruments in use advanced from 15,000 in 1910 to 55,000 in March, 1923. Trunk-line communication for distances up to about 500 miles was instituted several years ago, and the introduction of "repeaters" is designed to render possible inter-communication over the whole of the Union.

CHAPTER 14.

CURRENCY AND BANKING.*

Currency of the Cape in 1795.—At the time of the surrender of the Cape to the British in 1795, the currency of the Cape consisted almost entirely of inconvertible paper money. There was only a very small amount of metallic money in circulation on account of the excessive drainage of coins out of the Colony in payment of imported goods, in view of the limited export trade and the impossibility of importing the usual supply of money from the Netherlands after the outbreak of war in Europe in 1793. The metallic currency represented a heterogeneous medley of Spanish dollars, Portuguese half-johannas, pagodas, rupees, English guineas and crowns, Dutch guilders, ducats and stivers, etc., brought into circulation in the Colony by the Company for the payment of the salaries of officials and soldiers or by the ships calling at the Cape on their way to or from the East.

The paper currency, on the other hand, consisted of rixdollars and skillings (nominally worth 4s. and 6d. respectively) to the amount of 1,291,276 rds., at the end of the Company's rule in 1795. Of this amount 680,000 rds. had been issued in 1793 to serve as the capital of the Lombard or Loan Bank, and had been lent out to farmers on mortgage security: but the paper currency as a whole was inconvertible into specie (metallic money), involving no real obligation on the part of the Government to pay in specie on demand at the will of the holder. This forced increase in the supply of money, accompanied by a great deal of unrest and discontent amongst the colonists and by the slackening of trade due to the war in Europe, had brought about a decline in its value. According to reports and despatches the depreciation of the paper currency of the Cape, during the last two years of the Company's rule, varied from 20 to 50 per cent.

Issues of Paper Money (1795-1825).—According to the terms of capitulation the British authorities guaranteed to maintain the paper money at its full value, with a further promise to make

* In connection with this chapter the author derived some assistance from Drs. A. J. Bruwer and A. E. Arndt. The latter has chosen the "Development of Currency and Banking in South Africa" as the subject of his doctoral thesis, which will be published in due course after certain additions and improvements have been made in consequence of further research in the Union.

arrangements for the ultimate liquidation of the inconvertible paper currency, if practicable. Moreover, it was agreed that the lands and the buildings in the Colony belonging to the Company were to be the security of that part of the paper money which was not already secured, through the Lombard Bank, by mortgages upon the fixed property of individuals.

Soon after the British occupation the value of the paper rixdollar began to improve as a result of the large military expenditures of the Imperial authorities in the Colony. There was an increase in the local demand for produce as well as in the volume of foreign trade. At first silver coins were imported for the purpose of buying military supplies, and these disappeared from circulation almost at once on account of the great demand for metallic money. Subsequently, however, instructions were given that payments were to be made as far as possible in paper money, which was taken by the Paymaster-General in exchange for bills on the British Treasury.

These bills on London were first sold to importers or others who had to make payments abroad, at a premium of 25 per cent. In other words, the paper rixdollar was at a discount in terms of English money. But, in view of the considerable supply of commissariat bills on London in relation to the demand, the rixdollar rose in value relatively to bills and, consequently, English sterling. The premium on bills declined from 25 to 10 per cent., and then to par; *i.e.*, the paper rixdollar regained its original value in foreign exchange and was equal to 4s. in English currency. In 1797 General Craig reported that even at par he could not obtain the requisite amount of paper money for the purchase of army supplies, on account of an insufficient demand for commissariat bills, and accordingly ordered a further issue of paper money to the amount of 250,000 rds.

While the rixdollar was rising in value as compared with bills on England, it was declining relatively to commodities, more particularly within the Colony. The increased quantity of money and the greater rapidity of circulation caused a substantial rise in prices. According to Professor Leslie, a comparison of the prices in 1798 with those which prevailed under the Company shows that all prices had risen. Local products had doubled in most instances, while imported goods had also risen, though in a smaller proportion, due in part to the fall in exchange. By 1798 bills were at a discount of 20 per cent., or the rixdollar was at a premium in terms of English money.

Then the increased quantity of paper money, besides causing a considerable decline in the purchasing power of the rixdollar within the Colony, also depreciated the value of the rixdollar in

terms of bills on London, from the premium of 1798 to a discount of from 20 to 30 per cent. Further issues of paper money were made in 1802, viz., 165,000 rds. as an addition to the funds of the Lombard Bank and 80,000 rds. as a special fund for procuring rice in time of scarcity.

Thus, when the Cape was handed over to the Batavian Republic in 1803, the paper money in circulation had increased to 1,786,276 rds. Prices had risen in the meantime, and the rixdollar was again subject to depreciation, though somewhat reduced by the commissariat bills, in terms of English money. The paper money was indeed secured by property inherited from the Company or by mortgages on private property, but, as in the case of the "assignats" of France, that was not sufficient to prevent depreciation. The money was inconvertible into specie and was issued in excess. It was due to excessive issue, and not inadequate security, that depreciation of the paper rixdollar took place.

Under the Batavian Republic (1803-06) further issues of paper money were made to the extent of 300,000 rds., for the purpose of paying certain public expenses and providing relief to the inhabitants of Stellenbosch who had incurred heavy losses in a great fire in 1803. Thus, on the second British occupation of the Cape in 1806, the amount of paper money in circulation was 2,086,000 rds., and the rixdollar had considerably depreciated.

Under the Articles of Capitulation it was agreed, as at the first occupation, that the public lands and buildings were to serve as a security for that part of the paper money which was not already secured by mortgages on private property. This was attended with similar results as in the former case. For a time the rixdollar recovered and regained its original exchange value (4s.) in consequence of the expenditures on the Imperial military and naval forces at the Cape. Governor Baird issued a proclamation, fixing and determining the relative values of the coins in circulation in the Colony, and providing for the exchange of the skilling at sixpence and of the Cape rixdollar at 4s., at the same time prohibiting the export of specie. This exchange value was maintained for a brief period, and then followed the inevitable course of depreciation again, as the result of an excessive quantity of money in circulation. This process was further assisted by the establishment of the Discount Bank in 1808, which tended to accelerate the circulation of money, and by the issue of more paper money in 1810 and subsequent years.

By 1810 already the average exchange value of the rixdollar for the year had depreciated to 3s. 2d., from 4s. in 1806, while for the five-year period the average value of the rixdollar had been

3s. 6d. As is usually the case under such conditions, the increased quantity of money had brought about a higher level of prices, and in order to maintain the higher prices the larger amount of money had to be retained in circulation. It even seemed necessary to resort to further issues, as there were frequent complaints concerning the supposed scarcity of money. Accordingly, in 1810, an amount of 500,000 rds. was issued and added to the capital of the Lombard Bank, to be lent upon the mortgage of private property; and in 1812-14 a further sum of 500,000 rds. was issued in five instalments for the purpose of erecting certain public works and buildings. By 1814 the paper currency had increased to 3,171,204 rds., and by 1815 the average exchange value of the rixdollar had declined to 2s. 3d. The greater quantity of money had led to further depreciation, in the absence of a corresponding increase in the volume of trade. While between 1806 and 1810 the average value of the Cape rixdollar in exchange for bills on England had been 3s. 6d., it was only 2s. 6d. between 1811 and 1815.

In 1813 a Commission had been appointed by Sir John Cradock to inquire into the causes and effects of the depreciation of the paper currency. The Commission reported in 1814 to the effect that there had been an over-issue of paper money, that prices had been unduly inflated, and that certain issues should be called in. Cradock agreed with the findings of the Commission and was inclined to adopt their recommendations, but he was succeeded in that year by Lord Charles Somerset, who was at variance with these recommendations and had no intention of carrying them into effect. However, although Somerset issued a further sum of 300,000 rds., the continuous withdrawal of small amounts of paper money from circulation resulted in a reduction in the quantity of paper money to 3,099,204 rds. by June, 1825. In the meantime, the value of the rixdollar in sterling exchange had depreciated from an average of 2s. 6d. between 1811 and 1815 to 1s. 10d. in 1816-20, and 1s. 6d. in 1821-25.

Causes of Depreciation.—The causes of the depreciation of the rixdollar may be briefly summarised as follows:

(1) It was due largely to the over-issue of inconvertible paper money. As is usual under such circumstances, the quantity of paper money issued was offered against the already existing currency for the purchase of commodities and services, and depreciation set in. According to Grant, in his "Considerations on the State of the Colonial Currency," the establishment of the Discount Bank in 1808 was a factor which further influenced the depreciation of the currency, as it "must have contributed in an essential

degree to diminish the demand for currency by the transfer of bank credits and payments without the intervention of the circulating medium."

(2) It was also due to the considerable excess of imports over exports and the unfavourable balance of payments in certain years¹. This was especially the case after 1820. At certain times larger payments had to be made to England and other countries for visible or invisible imports than were due to the Cape for visible or invisible exports, with the result that the demand for bills on England exceeded the supply, causing a rise in the price of such bills in terms of rixdollars, *i.e.*, a depreciation in the value of rixdollars in terms of English money.

The rate of exchange between the Cape and England turned against the Cape on account of the joint operation of over-issue, greater rapidity of circulation and greater use of bank credits and transfers, and an unfavourable balance of payments. In connection with this matter it must also be borne in mind that between 1797 and 1821 England likewise passed through a period of inflation and inconvertible paper money, and that therefore the depreciation of the rixdollar in terms of English money was held in check until the resumption of specie payments in 1821 and the consequent appreciation of English sterling automatically promoted the depreciation of the rixdollar, in exchange for bills on England.

Currency Reform in 1825.—Thus, in 1825 the currency of the Cape consisted almost exclusively of depreciated paper money to the amount of 3,099,204 rds., in notes of from 1 to 500 rixdollars, and in smaller notes of 1, 2 and 4 skillings. The only metallic currency in circulation consisted of a trifling amount in British pence, locally known as "dubbeltjes," which passed in exchange for 2 stivers. Moreover, the paper rixdollar was worth only 1s. 6d. in English money, in accordance with the rate of exchange for bills on London.

At this time the Imperial Government decided to reform the currency of all the British Colonies by gradually introducing British silver money as the basis and standard of the circulation throughout the Empire. English silver and copper coins were to be brought into circulation in the Colonies through the Commissariat and the Imperial troops, and these coins were to be convertible, at the will of the holder, into the standard gold currency of the United Kingdom². In this way, in order to secure certainty and uniformity,

¹ See chapter on Foreign Trade.

² In 1816 gold had been established as the sole standard of value in the United Kingdom, with silver and copper for subsidiary or token coinage.

English silver money was introduced into the Cape Colony and declared a legal tender in discharge of all debts at the rate of 1s. 6d. for each paper rixdollar.

Thus, the rixdollar was declared to be equal to 1s. 6d. in English money, in view of the fact that between 1821 and 1825 the average rate of exchange had been about 1s. 6d.; and in order to maintain it at that value it was to be "at all times exchangeable, at the will of the holder, for bills upon the British Treasury at the rate of £103³ in value of rixdollars, computed at 1s. 6d. each, for every £100 bill." Moreover, the paper money brought in for the purchase of such bills was not to be re-issued but withdrawn from circulation; and all public accounts were to be kept in English money.

This step led to severe opposition on the part of diverse interests in the Colony and to numerous petitions. It was looked upon as a confiscation of private property and a repudiation of the original promises of the Government to maintain the value of the rixdollar at 4s. and ultimately to redeem the issues of paper money. The fixing of the rixdollar at 1s. 6d. amounted, in fact, to a partial repudiation of the debt contracted by the Government for the purpose of rural credit or public works and buildings, and inflicted heavy losses on the creditors who had entered into contracts prior to 1815, when the rixdollar was worth 2s. 6d. or more, or even between 1815 and 1820 when it was 1s. 10d. on an average. Those who objected most were "freeholders, mortgagees, planters and others interested in fixed and other property at the Cape."

The depreciation was due largely to over-issue, and for this a series of successive Governors were responsible. The value of the rixdollar could have been maintained in proximity to its original value, if the issues of paper money had been kept within reasonable limits. The paper currency was virtually a tax on the colonists to the extent of the depreciation, for the purpose of assisting the Government in the construction of public works and the maintenance of public services. Moreover, the interest on the paper money lent out to farmers and others through the Lombard Bank served as an important source of revenue.

In general, however, it may be stated that, although a certain amount of injustice was inevitably involved in the reform of the currency, the Imperial Government was justified in taking that action in the interests of the future development of the Colony, especially in view of the fact that the external exchange value of the rixdollar had been about 1s. 6d. for four or five years and by 1825 the internal depreciation had come to be nearly as great as

³ This additional charge of 3 per cent. was merely intended to cover costs and was subsequently reduced to 1½ per cent.

the external depreciation, taking into consideration also the fall in prices in other countries after the close of the Napoleonic War. It is very likely that most contracts, which were still current in 1825, had been made during those five years.

Currency of the Cape after 1825.—Thus, in 1825 British silver money was adopted as the basis or standard of the currency of the Cape and made convertible into the standard gold currency of England, thereby linking the Cape currency to English sterling. Between 1825 and 1839 a sum of £288,000 in British silver and copper coins was introduced into the Colony through the Commissariat and brought into circulation.

The paper rixdollars, on the other hand, being declared equal to 1s. 6d. in English money and maintained at that rate by being exchangeable for bills upon the British Treasury, were to be withdrawn from circulation by the Commissariat as they were brought in for the purchase of such bills. The withdrawal of the rixdollar notes was a necessary corollary to the introduction of the British currency. In 1830 all the rixdollar notes were called in to be replaced by sterling notes, *i.e.*, paper money expressed in terms of British currency and being likewise exchangeable for bills on England; but it was not until 1838 that all the rixdollar notes were withdrawn from circulation and destroyed and replaced by sterling notes, of which there was an amount of £202,698 in circulation at the time. In addition to this the metallic currency amounted to about £300,000, consisting mainly of English silver and copper coins, and to a smaller extent of gold sovereigns and half-sovereigns. Then the sterling notes were gradually withdrawn until in 1843 the British Government decided to rid itself of its liability on the Cape money, the notes still outstanding being exchanged for specie or Government 5 per cent. stock.

In this way the currency of the Cape was finally purged of Government inconvertible paper money and placed on a sound basis. Henceforth the currency of the Colony consisted of coins and bank notes. A number of joint-stock banks had been established in the meantime, which regulated their own note issues in accordance with banking prudence. In 1879 legislation was passed with a view to limiting the note issues of the joint-stock banks to the amount of the paid-up capital; and in 1881 the currency of the Cape was placed on the gold basis or standard, silver and copper coins being reduced to their proper subsidiary position as legal tender for sums not exceeding 40s. Finally, in 1891 the Colonial Banking Act¹ was passed with a view to safeguarding

¹ This Act regulated the currency of the Cape until the establishment of the Central Reserve Bank in 1920.

the note issues in the interests of the public and, at the same time, securing a market for Government stock. This legislation was introduced on account of the bank crisis of 1890, when a number of bank failures took place, and was influenced by the difficulty of floating Cape loans at a satisfactory price, which prompted the Cape Government to adopt the United States precedent of allowing banks to issue notes against Government stock. Banks having their head offices outside the Colony were to deposit with the Treasurer Government securities equal, as regards par value, to the amount of the note issue ; and the total sum issued by any bank was limited to the amount of its paid-up capital and reserve, the notes being payable in gold on demand at its head office and such other places as might be specified on the face of the note.

Banking in Cape Colony (1793-1910). Lombard or Loan Bank.—In 1793 the first bank was established at the Cape, called the Loan Bank and also known as the Lombard Bank. It was a State bank and was established on the basis of a paper-money capital for the relief of distress, especially amongst the farmers, and for the purpose of checking usurious transactions. It was purely a loan bank, exercising only the one function of lending inconvertible paper money on the security of property, whether movable or immovable. The Lombard or Loan Bank was authorised to lend money at 5 per cent. (1) on mortgage of lands and houses for a period of not less than 6 months nor more than 2 years ; (2) on gold, silver, jewels, merchandise and furniture for not longer than 18 months, and (3) on perishable goods for 9, 6 or 3 months, or even less than that according to the discretion of the commissioners or directors. It was to be partly a mortgage-bank, granting relatively short-time credit on landed property, and partly a pawn-bank, taking in custody jewels, gold and silver plate, and other articles as security for loans. As collateral security two persons of substantial means were required to pledge themselves for the due repayment of the loan.

Loans upon immovable property were not to be granted for less than 6 months nor more than 2 years, but it was left to the discretion of the commissioners to renew the loans after the expiration of the term allowed. These anticipated exceptions, however, became the general rule, and in practice the repayments of loans were never made, and not even demanded. Moreover, the bank was intended to place a check on usury, but as speculators were in a better position to give the requisite security and then to lend out the money again to needy farmers at higher rates of interest,

it served to promote the conduct of usurious traffic rather than the development of agriculture and trade.

In 1808 an important change was made. In that year the great bulk of the capital of the bank, viz., 810,225 out of 845,000 rds. was invested in fixed loans, with the result that the bank, having no longer the means of lending out further sums, came to be of no other advantage to the public than collecting the interest on the loans and paying it into the Treasury as public revenue. With a view to rendering the financial resources of the Bank more mobile, all outstanding loans were called in and were to be repaid in annual instalments of 10 per cent. of the principal in the case of the inhabitants of Cape Town and the vicinity, and 6 per cent. in the case of those in the country districts. Moreover, the rate of interest on all new loans after that date was to be 6 per cent.

Discount Bank.—At the same time provision was also made for the establishment of a Government Discount Bank, under the same management as the Loan Bank, for the purpose of discounting commercial bills and supplying the business community with short-time credit on some other kind of security than the mortgage bond. The operations of the new institution were in a special manner to extend to trade, and thus facilitate the commercial transactions of the colonists and relieve the community from the “exorbitant premiums demanded by those who engrossed the capital of the Lombard Bank.”

The original capital of the Discount Bank consisted of 246,000 rds., comprising the unappropriated interest arising from the funds of the Orphan Chamber to the amount of 96,000 rds., and surplus revenue in the hands of the Receiver-General amounting to 150,000 rds. It was further to take custody of all public deposits paid in by the Receivers of Revenue and the funds of the Orphan Chamber, and was permitted to receive private deposits. For example, in 1825 the English East India Company had 400,000 rds. on deposit in the bank. In 1824 the total amount of personal deposits was 1,500,000 rds.

The bank was allowed to discount bills or promissory notes payable within three months and not exceeding 5,000 rds., drawn by any individual or merchant, and also registered bonds to the extent of one-half of their value, provided the same did not exceed 5,000 rds. Applications for discount of bills, notes or bonds exceeding 5,000 rds. were to be referred to the Governor. The discount rate was 6 per cent. and the rate of interest allowed on deposits fixed for 12 months or longer was 5 per cent. By 1814 the whole of the capital destined for discounting operations had been withdrawn from the Discount Bank and lent out to the public in

loans for three months only, subject to occasional renewal for the same period, and the bank came to rely entirely on deposits for its discounts. The time deposits bearing interest were applied either in discounts or "short" loans, and it was deemed a safe policy to apply one-third of the general deposits not bearing interest for purposes of discount. After 1814, however, no interest was payable on fixed deposits; and discounts were frequently made to the extent of two-thirds of the deposits, instead of only one-third as originally decided upon.

The Government Loan and Discount Bank, as a joint institution, exercised the functions of (1) lending inconvertible paper money at 5 or 6 per cent. on the security of movable or immovable property until such money was called in and withdrawn from circulation; (2) receiving public or private deposits, and (3) discounting bills, promissory notes or bonds at 6 per cent. on the basis of from one-third to two-thirds of the deposits, and at times other funds placed at its disposal. It continued to be the only bank in the Cape Colony until 1831 when the Cape of Good Hope Savings Bank, which is still in existence, was established at Cape Town, and remained the only discount bank until 1836 when the Cape of Good Hope Bank, the first private commercial bank on the joint-stock principle, was opened in Cape Town.

Especially after 1825 it had become evident that the Lombard and Discount Bank was entirely inadequate in financing the business and meeting the requirements of an expanding colony. Accordingly, agitations were set on foot with a view to securing the establishment of joint-stock banks. This movement was enthusiastically supported by several prominent men in the Cape Colony, among others Ebden and Fairbairn⁵, the editor of the "Commercial Advertiser," in whose leading columns were set forth the advantages and the security which joint-stock banks afforded the public "for their notes, deposits, and all other engagements."

Thus, in view of the growing needs of the Colony and the lack of enterprise on the part of the Lombard and Discount Bank, there came a reaction to the State monopoly of banking and a rapid multiplication of local banking institutions, based upon deeds of agreement and not charters, as the Government refused to grant any bank charters. The Government Bank continued in existence until 1842, when it was finally liquidated and Government deposits were placed in private banks.

⁵ They were prompted and encouraged in their efforts by the fact that, at this time, joint stock banking attracted considerable attention in England.

Local or District Banks.—During the period from 1836 to 1862 29 local or district banks were established in the Cape Colony. The first was the Cape of Good Hope Bank, which was opened at Cape Town in 1836, followed by the South African Bank and the Eastern Province Bank in 1838, the former in Cape Town and the latter in Grahamstown. In 1844 the Colonial Bank was opened at Cape Town, followed by the Port Elizabeth Bank in 1846, the Union Bank at Cape Town in 1847, the Western Province Bank at Paarl and the Frontier Commercial and Agricultural Bank at Grahamstown also in 1847. The movement was now in full swing and banks were springing up like mushrooms in every important town in the Colony. By 1856 there were 17 joint-stock district banks in the Cape, rising to 29 in 1862. Besides those already mentioned, banks were established at Graaff-Reinet, Wellington, Stellenbosch, Worcester, Malmesbury, Caledon, Swellendam, Queenstown, George, Beaufort West, Fort Beaufort, Somerset East, Cradock, Burghersdorp, Colesberg and Uitenhage.

These local banks were operated with a comparatively small capital, in most cases less than £20,000, and in only a few cases ranging between £20,000 and £175,000. In general the capital was obtained locally and distributed amongst a large number of subscribers. They were primarily commercial banks, established for the purpose of facilitating commercial transactions and based on the ordinary principles underlying commercial banking, in accordance with which they exercised the functions of note issue, deposit, discount and short-time credit. There were, however, two agricultural banks, viz., the Caledon Agricultural Bank and the Agricultural Bank of Queenstown, and a few combined agricultural and commercial banks, such as the Malmesbury Agricultural and Commercial Bank and the Frontier Commercial and Agricultural Bank at Grahamstown.

On the whole, these banks, which were in the main purely local banks with local capital and local directors, were well managed in the earlier period. In 1854 it was reported in the "Commercial Advertiser" that the banks were "conducted with prudence, integrity and judgment, much to the credit of the colonial character," and that "from none of the banks had the public ever suffered the slightest loss, or even alarm."

In 1862 the paid-up capital of the local banks amounted to £940,000, and the reserve fund to £148,000. The amount of the note circulation was £305,000 and of the deposits £1,956,000, while the cash in hand was £286,000—i.e., the ratio of cash in hand to liabilities to the public was only about 12½ per cent., which is one-half of what the ratio should be under a system of commercial

banking without a central bank in order to provide for a substantial margin of safety. There was no Governmental control over the note issue or other banking operations, and the banks were under no legal obligation to publish accounts in accordance with specific regulations. According to the *London Bankers' Magazine* for 1860, the natural limit of the paper circulation at the Cape was as much as people would take of it "as a mere promise to pay out of assets, irrespective of a certified quantity of coin or bullion as security for the integrity for the note; that is, substituting the security of credit for cash." Like the United States of America, the Cape passed through a period of free banking after a period of State banking.

There were several other defects in the system of local banks in the Cape Colony :—

- (1) No adequate provision was made for the expansion of capital as the trade of the Colony increased.
- (2) No interest was granted on current deposits in excess of a certain amount, or interest was granted on terms which did not suit the views and wants of depositors generally, with the result that depositors were inclined to withdraw their money whenever they had doubts concerning the solidity of a bank.
- (3) A fixed rate of 6 per cent. on loans and discounts was charged, whether there was an abundance or a scarcity of money.
- (4) The banks were restricted by law to the issue of £5 notes.

The "Imperial" Banks.—The development of local banking institutions was followed by the advent of the so-called Imperial banks, *i.e.* banks having their head offices in London and financed by English capital. The first of these banks, the London and South African Bank, was opened in Cape Town in 1861 with a capital of £400,000, and branches were established in various other centres. It was followed in 1862 by the Standard Bank of South Africa, which likewise opened branches in a number of towns in various parts of South Africa. Rivalry between these two large institutions continued until 1877, when the London and South African Bank was merged into the Standard Bank. In the meantime the Oriental Banking Corporation had appeared on the scene in 1873, but it withdrew in 1879, some of its branches being taken over by the Bank of Africa, which started business in South Africa in that year. The last Imperial Bank was the African Banking Corporation, which was established in 1891.

The advent of these Imperial banks involved the importation of a large amount of foreign capital, the establishment of numerous

branch banks and the gradual absorption of the local banks. The import of new capital in 1861 and 1862 created a speculative boom culminating in a serious crisis in 1865-6, the first of a series of financial crises. In 1865 the Standard Bank used £30,000 of its reserve for bad debts, and in 1866 a further sum of £16,000 was appropriated for that purpose. Then came the discovery and the exploitation of the diamond fields, which brought about a highly speculative environment. There was a good deal of speculation in diamond shares, inflation as the result of the absence of checks on the expansion of currency and credit, overtrading, etc. For example, in 1869 the total bank deposits amounted to £1 $\frac{3}{4}$ million, as compared with £6,100,000 in 1879.

The outcome was a depression which prevailed in more or less acute form from 1881 to 1886. The banks suffered heavy losses and were obliged to contract their note circulation and loans to the public. In 1879 the Oriental Banking Corporation had to use its entire reserve fund of £325,000 for bad debts, which were however not contracted in South Africa. Its successor, the Bank of Africa, could pay no dividends in 1883 and 1884 and was obliged to appropriate £75,000 from the reserve fund for bad debts. In 1886 it even had to reduce its capital by £250,000 for the same purpose. In 1883 the Standard Bank withdrew £130,000 from the reserve fund apart from the direct appropriations from profits. Between 1881 and 1886 the total assets of the Cape banks declined from £18,500,000 to £8,000,000 ; loans and discounts fell from £10,500,000 to £3,000,000 ; the note circulation was contracted 50 per cent., deposits 59 per cent., reserve funds 66 per cent., etc.

In this speculative environment the local banks, which had enjoyed an ephemeral prosperity prior to the advent of the big banks, the imposition of a bank-note duty in 1864 and the discovery of the diamond mines in 1870, were likewise involved in heavy losses which, in the absence of adequate resources and branch extensions, could not be as easily and effectively neutralised as in the case of the Imperial banks. Some failed, while others were absorbed by the big banks. The remaining local banks survived only to meet their doom during the next crisis in 1890, which was due to over-expansion and inflation of currency and credit during the speculative boom consequent upon the opening of the Rand gold mines, overtrading, speculation in gold shares, property, etc. There were hardly any restrictions on banks and their note issue, and in such an unusual speculative atmosphere the banks did not know their limits. Some of the remaining local banks failed, such as the Union Bank and the Cape of Good Hope Bank, while the others, with the exception of the Stellenbosch District Bank which was

formed in 1882, were absorbed by the three Imperial banks. In this way the twenty-nine local banks which had been founded in the Cape Colony between 1836 and 1862 passed out of existence under the stress of periodical financial crises.

Thus, in 1892, after a process of elimination and amalgamation, the banking business of the Cape Colony came to be concentrated, with one exception, in the hands of the three Imperial banks, viz., the Standard Bank of South Africa (with 72 branches throughout South Africa), the Bank of Africa (with 24 branches), and the African Banking Corporation (with 18 branches). There was only one small local bank in operation, the Stellenbosch District Bank. The branch-bank system, *i.e.*, large banking institutions with numerous branches all over the country, was now firmly established in South Africa, and the concentration of banking resources was even carried a step further after the establishment of the Union.

Banking in South Africa (1891-1910).—During the period from 1891 to 1910 the Imperial banks opened a large number of new branches not only in the Cape Colony, but also in other parts of South Africa. There was likewise considerable activity in branch extension on the part of the banks of the Transvaal, Natal and O.F.S. Under the stimulus of the mining industry there was a remarkable development of banking in South Africa during this period, as illustrated in the following table, which also shows the inflation of the post-war boom, the effects of the subsequent depression, and the decline in the ratio of metallic reserves to liabilities to the public (*i.e.*, notes and deposits).

Notes, Deposits, etc., of South African Banks (1891-1910).

Year.	Notes.	Deposits.	Loans and Discounts.	Coin and Bullion.	Ratio of Reserves.
	£	£	£	£	%
1891 ..	939,000	12,295,000	9,820,000	4,473,000	33·8
1899 ..	2,076,000	25,153,000	19,684,000	8,077,000	29·7
1902 ..	2,658,000	47,222,000	34,985,000	11,472,000	23·0
1907 ..	1,750,000	37,791,000	30,801,000	7,968,000	20·1
1910 ..	2,394,000	42,474,000	37,133,000	7,766,000	17·3

Currency and Banking in Natal (1843-1910).—As Natal was only colonised after the reform of the currency throughout the British Empire and the introduction of British silver money as the basis of the circulation in all the British Colonies, its currency was placed on a sound footing from the very beginning and consisted primarily of English silver and copper coins until the opening of the

Natal Bank in 1854, when bank notes were also issued and brought into circulation.

The Natal Bank was established at Pietermaritzburg in 1854 with a capital of £20,000. It was empowered by law to perform the functions of an ordinary commercial bank, to issue notes payable on demand in British sterling money, and to establish branch banks. The notes were not to exceed the paid-up capital of the Bank and were to be covered by a specie reserve of one-third, which was also required for the current deposits. Provision was also made for the publication of statements of assets and liabilities at the close of each half-year, and for the application of the double-liability principle to the holders of the bank's shares.

In 1862 the Commercial and Agricultural Bank of Natal was started with a capital of £50,000 ; and in the same year the Colonial Bank of Natal and the Durban Bank were also opened. These banks were largely based on the principles embodied in the Natal Bank Law.

The Natal banks were also adversely affected by the excessive speculation and the financial crises of 1865-6, 1881-3, and 1890. The crisis of 1865 was accentuated by over-speculation on the part of the sugar-planters and the commercial community. The Colonial Bank of Natal was one of the victims of this crisis. The Durban Bank likewise got into financial difficulties and was subsequently renamed the London and Natal Bank, which was liquidated in 1877. After the crisis of 1890 the Natal Bank was the only local bank in operation in Natal. In the meantime, however, the three Imperial banks had opened a number of branches in the Colony of Natal. By the end of the 19th century the foundations of banking in Natal had been securely laid, and all four banks were rapidly expanding their business.

Currency and Banking in the Orange Free State prior to 1910. — During the earlier period of its existence there was very little money in the Orange Free State. Trade was conducted mainly by barter, and to a small extent only by means of a metallic or a paper currency. As its trade with the Cape Colony increased, English coins and notes of Cape banks, more particularly the Colesberg and Albert Banks, were brought into circulation from time to time. Thus, while the Cape Colony was passing through the transition from a "money economy" to a "credit economy," the O.F.S. was only beginning to emerge from the stage of "barter economy."

In 1862 the first bank of the O.F.S., the Bloemfontein Bank, was opened at Bloemfontein with a capital of £30,000, followed in the same year by the Fauresmith Bank. The latter bank, however,

was taken up in December, 1863, by the Standard Bank, which also opened a branch at Bloemfontein at the same time and gradually brought its notes into circulation.

The Bloemfontein Bank was established on the unlimited liability principle and was a bank of deposit, discount and issue. The note issues of this bank began directly after it was founded, a number of £5 notes being ordered from Cape Town. It was well conducted and yielded a substantial profit from the very beginning, but it was not able at first to supply an adequate currency. There was an acute scarcity of money in all parts of the Republic, and the discount rate was very high, viz., 10 per cent. In 1865, the year of depression, the Bloemfontein Branch of the Standard Bank suddenly ceased discounting bills and raised its rate of discount on renewals to 12 per cent., plus 2 per cent. commission. The Bloemfontein Bank, which had been hampered in its operations by the competition of the Standard Bank, was powerless to remedy the situation. Money became very tight and a number of bankruptcies took place, the result of which was that an agitation was set on foot against the Standard Bank and that from 1st January, 1866, no foreign bank was permitted to do any banking business in the O.F.S.

In order to relieve the scarcity of money, which would be accentuated by the withdrawal of the Standard Bank notes from circulation, it was resolved by the Volksraad in 1865 to issue, through the Bloemfontein Bank, notes to the extent of £30,000, redeemable in coin at the expiration of 10 years from the date of issue. These notes were declared to be a legal tender within the Republic for 10 years, when they were to be redeemed at the rate of £6,000 annually. They were issued against Government security and lent out to the Bloemfontein Bank at 6 per cent. interest. The notes were known as "Bluebacks" on account of the colour of the paper on which they were printed. In 1866, on account of hostilities with the Basutos, a further issue of notes to the amount of £100,000 was made and likewise declared a legal tender. The sum of £43,000 was appropriated to defray expenses incurred in connection with the Basuto War, and the balance of £57,000 was lent to farmers on mortgage of landed property at 6 per cent. interest. The Government pledged as security for its portion of the issue all the public lands designated for that purpose by the Volksraad. After the lapse of five years the notes were to be redeemed at the rate of £10,000 every year, and the interest on the loans to farmers was also to be applied to redemption.

These "Bluebacks" were subject to depreciation at first. In trade they were reckoned at a discount as compared with

metallic currency, and the rate of exchange fluctuated considerably as time went on. As they were not acceptable in the British Colonies, a large part of the trade with the Cape and Natal had to be carried on by means of barter. Small change became very scarce, especially between 1865 and 1870, and the difficulty had to be solved by the issue of "good-fors" by private firms, as had been done in the Cape under similar conditions.

By 1872, however, on account of the activity on the diamond fields and the greater confidence in the notes due to the fact that the Government had commenced to gradually redeem them, the "Friend" (the local newspaper) was able to report that the "Bluebacks are now literally as good as gold, in fact for some purposes even better" and that "the Government notes and notes of the Bloemfontein Bank are exchanged at par for gold, but gold at par would be refused for up-country bank notes." In 1876, when the O.F.S. received £90,000 in compensation for waiving its claims to the diamond fields, all the notes still outstanding were called in and destroyed, and the currency was placed on a sound basis. Henceforth the currency of the O.F.S. consisted merely of metallic currency (English or Transvaal coins) and bank notes.

In the meantime a new bank had been established at Fauresmith in 1872, a branch of which was opened in Bloemfontein in 1874. In 1875 both of these banks were taken over by the Oriental Banking Corporation, which had obtained the necessary permission from the Volksraad, subject to certain conditions and restrictions, *e.g.*, a specie reserve of at least one-third the amount of notes in circulation and the publication of monthly statements in the "Government Gazette." In 1879 the Bank of Africa absorbed the banking business of the Oriental Banking Corporation in the O.F.S., as in the Cape, and made rapid progress, opening branches in various towns in the O.F.S.

In 1877 the National Bank of the Orange Free State was established at Bloemfontein and took over the Bloemfontein Bank. The capital was £100,000, to which the Government was to contribute £70,000, leaving £30,000 in shares of £5 each to private investors. The Bank was to be under the management of a Board of seven Directors, four to be chosen by the Volksraad and three by the shareholders. It could issue notes payable on demand in gold. The note issue was not to exceed £150,000, and the Bank was to hold a specie reserve of at least one-third the amount of notes in circulation.

The National Bank was a sort of semi-state bank, but without any special privileges. The Government was not even obliged to deposit the public revenues in the Bank. Foreign banks which

subsequently opened branches in the O.F.S. were accorded privileges similar to the National Bank. The notes of the National Bank were not legal tender, nor were they exempted from stamp duty or licence fees. Nevertheless the Bank flourished in competition with the Bank of Africa, and by 1896 already it had 13 branches.

Under the Bank Ordinance of 1902, banks in the O.F.S. were allowed to issue notes to the amount of their paid-up capital provided they held cash in hand to the extent of one-third the amount of the issue.

Currency and Banking in the Transvaal.—In the Transvaal, on account of its comparative commercial isolation, the stage of “barter economy” prevailed until a later date than in Natal or the O.F.S. For a long period its internal trade, as well as its limited trade with the coastal British Colonies, was carried on primarily in the form of barter. In the course of time, however, the growth of trade gradually brought English coins and bank notes from other South African territories into circulation in the Transvaal. Prior to the gold era there was always an acute scarcity of money, and the Republican Government was frequently involved in financial difficulties. Internal troubles and Kaffir wars continually exhausted the meagre exchequer of the Government, while the farmers were averse to the payment of taxation.

It was on account of these financial difficulties that the first issues of inconvertible paper money were made in the Transvaal. In order to provide for its exigencies and meet the liabilities incurred for the purchase of ammunition, it was resolved by the Volksraad in 1865 that the Government should issue notes. In that year notes were issued to the value of 140,000 rds., in denominations of 5 and 10 rds., and were known as “Bluebacks”, as in the case of the O.F.S. These Government notes were declared a legal tender, except for old debts, and were redeemable in cash at the expiration of 18 months, with 6 per cent. interest. The rixdollar notes were not paid at maturity but were called in after three years, in 1868, in view of the fact that in the meantime other issues of notes had been made in denominations of the English currency, which was also in vogue in the Cape, Natal and O.F.S.

In 1866 notes were issued to the value of £12,000 in denominations of £1, 5s., and 2s. 6d., payable in five years; in 1867 an amount of £20,000 was issued to replace the “Mandaten” or Treasury Bills still outstanding, and to pay arrear salaries and other items of expenditure; and in 1868 a further issue of £45,000 was made. Finally, it was resolved in 1870 to call in all the paper money in circulation and issue new notes uniform in appearance and con-

ditions. The amount of the new issue needed to cover all outstanding notes was £73,826. These Government notes were legal tender notes, redeemable at the rate of at least £5,000 per annum out of ordinary revenue or, failing that, by the sale of public lands.

The result of these successive issues of inconvertible paper money was a considerable depreciation, varying from 50 to 75 per cent. This was reflected in prices, wages, and the rate of exchange in terms of metallic money or the notes of Cape or other banks, accompanied by a good deal of discontent in various parts of the Republic. The causes of the depreciation were, as usual, overissue and the lack of confidence in the willingness or ability of the Government to redeem the paper money at maturity.

In 1873, however, the Government succeeded in securing a loan of £63,000 from the Cape Commercial Bank of Cape Town for the redemption of the "Bluebacks". In 1876 a further loan of £18,200 was contracted with the Pretoria Branch of the Cape Commercial Bank, as the former loan was not sufficient to redeem all the "Bluebacks" in circulation. In this way the Transvaal was relieved of its inconvertible paper money.⁶ Henceforth the currency of the Transvaal consisted of metallic money and the notes of Cape banks (including the Imperial banks), or those of Natal and the O.F.S. It was not until 1888 and 1891 respectively that the Transvaal acquired its own banks.

Prior to that time the banking business of the Transvaal had been conducted by the branches of some of the local banks in the Cape, such as the Cape Commercial Bank and the Cape of Good Hope Bank, the Natal Bank, the Standard Bank and the Bank of Africa. Especially after the opening of the Rand gold mines there was considerable activity in banking operations and the extension of branches, the Standard Bank being the first bank to open a branch on the Rand. In 1888 the Netherlands Bank of South Africa was established in the Transvaal, with its head office and directors in Amsterdam and its South African headquarters in Pretoria; and in 1891 the National Bank of the South African Republic (subsequently altered to National Bank of South Africa), was opened at Pretoria, with branches at other centres.

The National Bank of South Africa was originally established in the Transvaal under concession granted by the Republican Government to a syndicate formed mainly by Dutch and German

⁶ During the Boer War the Republican Government again resorted to the issue of inconvertible paper money as one of the means of financing the war. These Government notes were secured by all the fixed property of the State, and were to be redeemed in annual instalments commencing in 1901. On the annexation of the Transvaal, however, the British authorities refused to recognise the validity of most of the notes outstanding.

capitalists. The Government undertook to subscribe £100,000 towards the first £500,000 capital and to grant certain special privileges, such as that of being the sole banker to the Government. The capital was afterwards increased to £750,000, and subsequently to £1,100,000. After the Boer War the concession was modified and the Bank deprived of its exclusive privileges.

Under a separate concession a mint was established in connection with the National Bank on behalf of the Government of the South African Republic, and the coinage of the State was issued therefrom in accordance with the Mint Law of 1891. The English monetary system was adopted, with the exception that the gold coins⁷ were slightly finer, but not to such an extent as to allow of their being exported to Europe for smelting. After the Boer War, however, the Mint was permanently closed by the British authorities, but the Kruger coins continued to circulate in South Africa, many silver coins being still in circulation at the present time.

After the bank crisis of 1890 and the failure of the Cape of Good Hope Bank, its banking business in the Transvaal was taken over by the African Banking Corporation, which also opened a number of new branches in that territory. In 1900 the Robinson South African Banking Company was instituted, but went into voluntary liquidation in 1905. Thus, at the time of Union, there were six banking institutions in the Transvaal, viz., the National Bank of South Africa, the Standard Bank, the Bank of Africa, the African Banking Corporation, the Natal Bank, and the Netherlands Bank of South Africa.

Currency and Banking in the Union (1910-20).—During the first ten years the currency and banking of the Union were governed and regulated, subject to certain modifications, by the laws in force in the respective Colonies at the establishment of the Union. These laws related principally to the issue of notes. In the Cape Province, banks⁸ having their head offices outside the Province were to deposit with the Union Treasury Government securities to the full amount of their note issues; and the total sum issued by any bank was limited to the amount of its paid-up capital and reserve, the notes being payable in gold on demand at its head office and such other places as might be specified on the face of the note, and the amount of the specie reserve being left to the discretion of the

⁷ Besides the Kruger pounds, mention should also be made of the gold sovereigns which President Burgers caused to be minted in 1873 out of gold obtained from Pilgrim's Rest, where gold was discovered in that year. Owing to the small number of such coins, they soon disappeared from circulation.

⁸ The Stellenbosch District Bank was, therefore, the only bank in the Cape which was not required to deposit Government securities for its note issue.

banks. In the Transvaal and the O.F.S., banks could issue notes to the amount of their paid-up capital provided they held cash in hand to the extent of one-third of the amount of the issue. In Natal there was no general law controlling the issue of bank notes, but under the special law incorporating the Natal Bank it was provided that the notes issued by that bank were not to exceed its paid-up capital and were to be covered by a specie reserve of one-third. Moreover, the bank notes issued under the Colonial Banking Act in the Cape against Government securities were legal tender throughout that Province, while other note issues were not legal tender in any part of the Union.

There was thus a lack of uniformity and elasticity in the currency system of the Union, which continued until the passing of the Currency and Banking Act of 1920. The currency was not based on strictly scientific principles, but in spite of its defects it was kept on a solid and secure footing until the seeds of inflation were sown in the beginning of the War, which culminated in the abandonment of the gold standard and the monetary crisis of 1919-20. On the outbreak of the War in 1914, gold sovereigns constituted the only legal tender currency in the Union, apart from silver coins to the value of 40s. and the notes referred to above as legal tender in the Cape Province. These notes, however, were guaranteed by the Government and convertible into gold. The metallic currency was the principal circulating medium in the Union, and the bank notes in circulation to the value of £2,400,000 (as compared with £8,300,000 in coin and bullion) represented promises on the part of the issuing bank to pay gold on demand. These provisions concerning gold as the principal legal tender in the Union, the deposit of Government securities to the full amount of the note issue, and the convertibility of all bank notes into gold on demand acted as "a check of constant pressure upon any tendency to inflate the paper currency of the country beyond its legitimate requirements."

Under the Currency Act of 1914 the Government was empowered to issue a proclamation, if it was considered necessary, declaring all notes in circulation in the Union to be legal tender except at the head offices of the banks of issue. It was further provided that notes could be issued in excess of the circulation at the time of proclamation and declared legal tender on condition of securities being deposited with the Minister of Finance. In this way inflation of the note issue was encouraged and facilitated. Moreover, the issue of £1 and 10s. notes was resorted to on a large scale after 1914, whereas prior to that date legislation had forbidden the issue of bank notes of a lower denomination than £5. The issue of 10s. notes

was not legalised until 1917 and was largely an effort to displace the use of gold coins as far as possible.

By 1917 the process of inflation was in full swing. The notes in circulation had increased from £2,404,000 in 1914 to £3,432,000 in 1916 and £4,658,000 in 1917. At the same time the deposit liabilities had also increased from £45,397,000 in 1914 to £64,772,000 in 1917. The inflation of currency and credit was further re-inforced by the embargo on the export of specie which had first been introduced by Proclamation in December, 1915. This prohibition of the export of gold coin deprived the Union of the true gold standard, which necessarily implies the free movement of gold in order to be able to work effectively, and led to rapid inflation. From £4,658,000 in 1917 the notes in circulation advanced to £8,220,000 at the end of 1919 and £9,614,000 in April, 1920; while the deposit liabilities rose from £64,772,000 in 1917 to £107,076,000 at the end of 1919 and £117,311,000 in March, 1920.

The following table shows distinctly the extent of the inflation of currency and credit in the Union between 1914 and 1920:—

Notes, Deposits, etc., of Banks in the Union (1914—1920).

Year.	Notes.	Deposits.	Loans and Discounts.	Coin and Bullion.	Ratio of Reserves.
	£	£	£	£	%
1914 ..	2,404,000	45,397,000	41,303,000	8,372,000	17·5
1917 ..	4,658,000	64,772,000	48,121,000	8,939,000	12·9
1918 ..	6,451,000	77,593,000	62,508,000	9,337,000	11·1
1919 ..	8,220,000	107,076,000	81,655,000	8,658,000	7·5
1920 ..	9,469,000	102,332,000	91,139,000	12,153,000	10·9

Thus, as a result of the inflationistic policy of the Union Government who encouraged the inflation of currency and credit by means of favourable legislation as well as laxity of administration and control, the bank notes in circulation were almost quadrupled and the deposits, loans and discounts were more than doubled, while the amount of coin and bullion held in the banks remained practically stationary until 1920 when specie was imported from England to the value of more than £4,000,000. The ratio of cash reserves to liabilities to the public (*i.e.*, notes and deposits), declined from 17½ per cent. in 1914 to 7½ per cent. at the end of 1919, which reflected a very unsound state of affairs.

In general experience has demonstrated that, in the absence of central banks, commercial banks should hold about 25 per cent. cash reserve, for the sake of complete security of currency and credit. During the five years (1910-14) the average ratio of the

cash reserves of the South African banks was about $17\frac{1}{2}$ per cent. This tendency was of course strengthened by the laissez-faire monetary policy of the Union Treasury, which proved to be very lax in its duties of supervising and controlling the operations of the commercial banks. Under the Banks Act of 1917 all banks were required to render to the Union Treasury detailed returns of their assets and liabilities within and without the Union at the end of every three months, and such further returns as the Treasury might require to satisfy itself that the laws relating to bank note issues were being complied with. The only restriction on deposit banking lay in the requirement of publicity and governmental control which the Treasury failed to exercise.

The results of the inflation of credit and the overissue of paper money were, as usual, an undue rise in prices, fictitious prosperity, high profits and wages, increased revenue and governmental extravagance, speculation, etc. The banks enjoyed unusual prosperity on account of the inflation until their troubles commenced in 1919 with the decline of sterling exchange on New York and the appearance of the gold premium. During the War, and for some months after Armistice, sterling exchange on New York was "pegged" and maintained at 4.76 dollars; and all South African gold was purchased by the Bank of England at the standard rate of 85s. per fine ounce, *i.e.*, at par value in English currency. As South African exchange was linked to sterling exchange, and as all South African bank notes were legally convertible into gold in the absence of a Government proclamation legalising inconvertibility, the South African pound was a gold pound at par with the English paper pound,⁹ which was in close proximity to parity with the gold dollar (4.76 dollars per £ as compared with the par of 4.86).

When, however, the so-called pegging of sterling exchange was stopped and the rate of exchange was allowed to follow its natural course, the inevitable result was the decline of sterling exchange on New York, *i.e.*, the value of the English paper pound in terms of the American gold dollar. The exchange between New York and London served as a reliable index of the extent of the depreciation of the British paper currency as compared with gold. In other words, there was a premium on gold in terms of British currency, and accordingly steps were taken by the gold mines with a view to securing a free gold market in London and enabling them to obtain that premium on gold. Under the agreement of July, 1919, the gold was sold in the London market at the best price obtainable.

⁹ England had abandoned the gold standard at the commencement of the War.

The price of gold in London soon rose to an average of 105s. 3d. per fine ounce from September to December, 1919, reaching a maximum of 127s. 4d. on February 5th, 1920, in contrast to the standard rate of 85s. when British currency was representative of gold.

In spite of the fact that the English paper currency had depreciated considerably in terms of gold, while the currency of the Union was still based on the gold standard and the notes were convertible into gold, the banks continued to quote exchange rates on London as if English currency was on a parity with gold. Even in the beginning of February, 1920, when the gold premium was at its highest point, sight drafts on London were sold at par. The result was that although an embargo had been placed on the export of specie, gold coins were smuggled out of the country in view of the high price of gold obtained abroad, and that, in order to honour their promises to pay gold on demand, the banks had to buy specie at a premium of from 20 to 30 per cent. in London and pay it out in the Union at par. It was calculated that the banks lost £2,945,000 in gold coin between April 1st, 1918 and March 31st, 1920. This process could not of course be continued for any length of time, especially in view of the small cash reserves; and consequently, beginning in 1919, the banks appealed to the Government to issue a proclamation declaring their notes inconvertible. The agitation for inconvertibility continued throughout 1919, and two conferences were held, the outcome of which was that in March, 1920, a Select Committee of the House of Assembly was appointed to investigate the effects of the embargo upon the export of specie, and also to inquire into the desirability of modifying the existing statutory provisions in regard to currency and banking.

In this way the attention of the country was forcibly drawn to the defects in the system of currency, banking and exchange. The following defects were considered and subsequently reformed:—

- (1) the lack of uniformity and elasticity in the note circulation;
- (2) the need of centralising the cash reserves of the commercial banks;
- (3) the lack of rediscounting facilities;
- (4) the need of conserving the gold coin supply; and
- (5) the accumulation of credit balances in London on account of the considerable balance of trade in our favour in 1919, and the difficulty of transferring such balances to South Africa.

Currency and Banking Act of 1920.—In accordance with the recommendations of the Select Committee the Currency and Banking Act

was passed in 1920, which provided for the issue of temporarily inconvertible gold certificates and the establishment of a Central Reserve Bank.

Gold Certificates.—The issue of gold certificates by the Treasury in exchange for deposits of gold coin and bullion was devised with a view to conserving the supply of gold coin and bullion in the Union. The Treasury may under certain circumstances require each bank transacting business in the Union to deposit the whole or any portion of the gold coin held by such bank and receive in exchange gold certificates. Such certificates may only be issued to the amount of the face value of gold coins or at the rate of £3 17s. 10½d. per standard ounce for gold bullion or light coins. Except when the market price of gold in the Union exceeds £3 17s. 10½d. per standard ounce, as has been the case during the last four years, gold certificates are redeemable at the Treasury in gold specie on demand, and are legal tender for the payment of any sum up to their face value.

On the 30th April, 1924, there were gold certificates to the amount of £10,238,648 outstanding, of which £10,102,286 was held by the Reserve Bank; and the Treasury held gold in custody to the full amount for redemption of the certificates.

Central Reserve Bank.—The Bank is managed by a board of eleven directors, of whom six are elected by the shareholders (three actively engaged in commerce or finance, one in agriculture, and two in other industrial pursuits), and three are nominated by the Government who also appoints the Governor and the Deputy-Governor of the Bank.

Under the Act the Reserve Bank is entrusted with the duty and responsibility of maintaining the currency and banking of the Union on a sound basis, as manifested by the following provisions:

(1) The Bank has the sole right to issue bank notes in the Union for a period of 25 years. The notes are to be secured to an amount of not less than 40 per cent. in gold, and the remainder in commercial paper or trade bills, and by a first charge on all the assets of the Bank. This complies with the requirements of uniformity, elasticity and security. In 1923, however, it was provided that, for a period of five years (1923-28), Treasury bills of the Union or the British Government could be used as security for notes up to 35 per cent. of the total note issue, on account of the lack of an adequate supply of trade bills. The use of British Treasury bills was also designed to enable the commercial banks to utilise their London balances in the Union pending a return to the gold standard.

(2) In addition to the gold reserve required for the notes, the Bank must hold in gold or specie a reserve of at least 40 per cent. of its deposits and bills payable.

In practice the Bank holds a metallic reserve which is far in excess of the legal requirements. On the 31st May, 1924, the Bank had deposits from the commercial banks to the amount of £5,671,000 and notes of the value of £10,873,000 in circulation, as compared with gold certificates to the amount of £10,102,000, £549,000 gold coin and bullion and £50,000 subsidiary coin, *i.e.*, a reserve of 64.7 per cent. instead of 40 per cent.

(3) The Bank holds cash reserves of all the commercial banks equal to at least 10 per cent. of their demand liabilities in the Union other than notes, and 3 per cent. of their time liabilities to the public in the Union; otherwise a penalty is imposed at the rate of 10 per cent. per annum on the amount of the deficiency for each day that it continues. On March 31st, 1924, the commercial banks had deposited cash reserves in the Reserve Bank to the extent of £5,282,000.

(4) The Bank rediscounts bills of exchange, promissory notes or other commercial paper presented by the commercial banks, thus playing the part of a banker's bank as well. On May 31st, 1924, the rediscounts of the Bank stood at £3,248,000.

(5) The Bank also renders financial assistance to the Government. On May 31st, 1924, there were outstanding loans and advances to the Government of an amount of £2,300,000.

Significance of Currency and Banking Reform.—The Currency and Banking Act of 1920 is an important milestone in the history of currency and banking in the Union. It has, with certain minor exceptions, placed our currency and banking on a thoroughly scientific basis. It provides for (a) uniformity, elasticity and security in the note circulation; (b) restrictions on inflation of currency and credit; (c) the centralisation and custody of bank reserves; (d) the conservation of the supply of gold coin and bullion in the Union; (e) rediscounting facilities, etc. Although it will of course not be capable of rendering the country completely immune to economic depressions or financial crises, it can certainly be made to serve the purpose of minimising fluctuations and disturbances in our economic life in the future.¹⁰

Process of Deflation.—Under the above Act the Union was definitely committed to a paper basis for a period of years. It was deemed

¹⁰ The Act has already had an opportunity of demonstrating its usefulness in connection with the National Bank, which was involved in serious financial difficulties in 1923 and safely guided through the stormy waters by the Reserve Bank.

inexpedient to restore the gold standard immediately on the ground that "a sudden rise of the exchange to gold par was bound seriously to prejudice the agricultural and manufacturing industries of the Union, and in the case of the gold mines to produce a disastrous result leading to an early financial crisis." The process of restoration was to be gradual, and it was provided that gold certificates should be convertible into gold after 30th June, 1923.

Accordingly the commercial banks set to work to bring about the deflation of their considerably inflated credit structure and to return to a sound cash reserve basis by the time set for the convertibility of the gold certificates. In this process of deflation the banks showed undue haste and anxiety, causing an unusual disturbance in all economic activities and an excessive number of bankruptcies. The deposits of the commercial banks declined from £117,311,000 in March, 1920, to £104,452,000 in September, 1920, £90,998,000 at the end of 1921 and £77,765,000 at the end of 1923. Similarly, loans and discounts were reduced from £91,139,000 at the end of 1920 to £65,287,000 and £54,376,000 at the end of 1922 and 1923 respectively. The number of bankruptcies in the Union increased from an average of 910 in the years 1910-13 (both inclusive) to 2,092 in 1921 and 2,424 in 1922. In 1919 it was only 468. In this respect the Reserve Bank gave evidence of a weak point in its organisation. It has indeed been endowed with the ability to check inflation, but it lacks the right and the ability to check undue deflation, *e.g.* by entering the open discount market and discounting first-class bills without the intervention of the commercial banks.

However, in spite of the fact that the banks had carried out a hurried deflation, accompanied by excessive disturbances and bankruptcies, in order to prepare themselves for a return to the gold standard by June 30th, 1923, the Currency and Banking Act was amended in 1923 and the period of inconvertibility of gold certificates extended to June 30th, 1925. This was done principally on the ground that it was deemed more expedient, in the interests of our trade with the United Kingdom, to remain close to parity with English sterling rather than gold parity.

Restoration of the Gold Standard.—It is to be hoped that the Union will return to the gold standard on June 30th, 1925. There are at present no sound economic grounds for delaying the return to gold parity, while on the other hand the restoration of the gold standard will serve to place our currency and banking on a completely solid and secure foundation and increase the confidence in our banks within as well as outside the Union. It must be admitted

that this process will be attended by certain temporary disadvantages to our export trade to the United Kingdom and to the gold industry in consequence of the loss of the gold premium, but these are of minor importance as compared with the permanent advantages of the gold standard. If the exchange rates are quoted so as to reflect the true value of our gold pound in relation to the English paper pound, the readjustment of trade, prices, wages, etc., will follow in due course.

Moreover, the restoration of the gold standard is of considerable importance to the future prosperity of the gold industry which depends largely upon the value or purchasing power of gold,¹¹ which is again dependent primarily upon its use for currency purposes and is therefore to be undertaken without delay by the Union, provided the financial position of the banks permitted of such action being taken, in order to promote the movement in favour of the return to the gold standard in other countries. The commercial banks, aided by the Reserve Bank, are in a sufficiently favourable position to-day as regards cash balances, the ratio of cash reserves to liabilities to the public, the ratio of loans and discounts to demand liabilities, etc., to warrant the important step being taken. Taking all the commercial banks together, as well as the Reserve Bank, the ratio of cash reserves to liabilities to the public in the Union on the 30th April, 1924, was 18.4 per cent., as compared with an average of 17.5 per cent. during the five years immediately preceding the War; and the ratio of loans and discounts to liabilities to the public was 65.4 per cent., as compared with 86.9 per cent. in 1910-14.

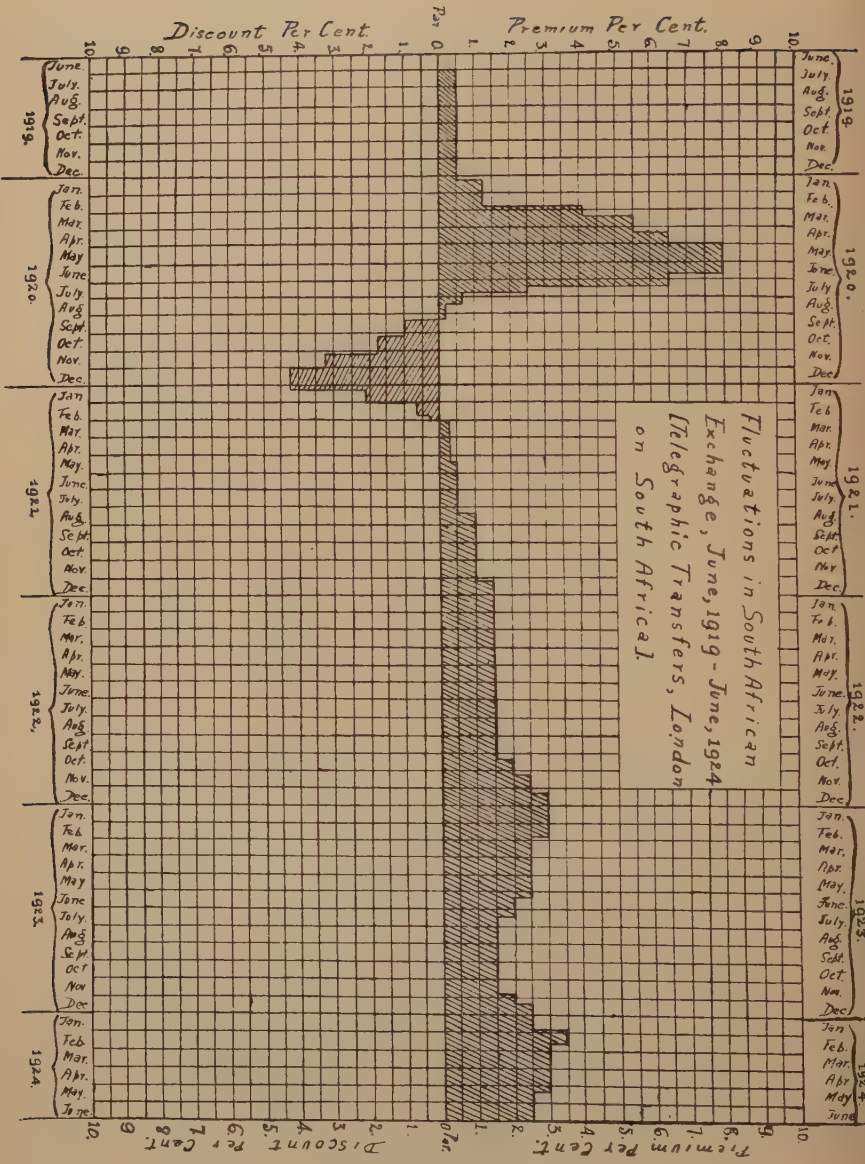
South African Exchange.—In connection with the problem of the gold standard it is also necessary to dislink South African exchange from sterling exchange. Commencing in 1825, when the paper rixdollar was fixed at 1s. 6d. in terms of English currency, and reinforced by years of established tradition consequent upon the establishment of the Imperial banks, South African exchange has become linked to sterling exchange. So long as English currency was based on the gold standard and English sterling represented gold, the linking of our exchange to sterling served to maintain the value of our pound abroad, subject to small commission and transfer charges; but when, in 1919, sterling exchange which was now based on inconvertible paper money began to decline, and South African exchange still remained on a parity with sterling, in spite of the fact that bank notes were still convertible into gold in the Union although the export of specie was forbidden, the anomaly of the system became apparent.

¹¹ See chapter on the Gold-mining Industry, p. 255.

Discount Per Cent.

Premium Per Cent.

Fluctuations in South African
Exchange, June, 1919 - June, 1924 -
Telegraphic Transfers, London
on South Africa.



The Union has no direct exchange relations with the money markets outside of London, and accordingly the rate of South African exchange means the price which South African money commands in London or the value of South African money in terms of English money. All exchange transactions between the Union and the United States of America or other countries outside of England are performed through London banks, which receive from an eighth to a quarter of one per cent. on all transactions.

The rate of South African exchange does not fluctuate from day to day or from hour to hour, as is ordinarily the case, but frequently remains unchanged for considerable periods, as shown in the accompanying graph, and is, subject to the modifying influence of the balance of trade or rather the balance of payments, fixed somewhat arbitrarily by the joint action of the two leading banks. Since January, 1924, sight drafts have been sold on London at a discount of from $1\frac{5}{8}$ to $2\frac{3}{4}$ per cent., i.e., South African money commands a premium over English money to that extent. Since February, 1921, South African exchange has been at a premium varying from $\frac{1}{4}$ to 3 per cent.

When the gold standard is restored in the Union, it will be necessary to dislink South African exchange from sterling exchange and institute natural exchanges and direct exchange relations with all important money markets in Europe and America. Otherwise the same difficulties will arise again as in 1919.

Commercial Banks.—In the meantime the amalgamation of banking concerns had been carried on to such an extent that by 1920 there were only two big banking institutions in the Union, viz. the Standard Bank of South Africa, and the National Bank of South Africa. In 1910 the National Bank of the O.F.S. had been amalgamated with the National Bank of South Africa, and in 1912 and 1914 the Bank of Africa and the Natal Bank respectively were likewise merged into the National Bank. Finally, in 1920 the African Banking Corporation was amalgamated with the Standard Bank. These two big banks, the Standard Bank and the National Bank, have a large number of branches in all four Provinces of the Union and have, by means of amalgamations, acquired a partial monopoly of commercial banking in South Africa.

There are four other commercial banks doing business in the Union, viz.: (1) the Netherlands Bank of South Africa with its head office in Amsterdam and branches in the Cape, Transvaal and O.F.S.; (2) the Stellenbosch District Bank which is a purely local concern; (3) the Colonial Banking and Trust Company, which commenced business as a commercial bank in Cape Town in 1921

and has branches in Johannesburg and Pretoria, and (4) the Transvaal Commercial Bank with its head office in Amsterdam and branches established in Johannesburg and Cape Town in 1923.

The following table shows the predominant position occupied by the two leading banks in the Union :—

Capital, Deposits, etc., of Commercial Banks, 31st December, 1922.

Heading.	Standard Bank.	National Bank.	Nether-lands Bank.	Colonial Banking Co.	Stellenbosch Bank.
	£	£	£	£	£
Paid-up Capital and Reserve ..	5,122,000	3,965,000	290,000	53,000	38,000
Deposits	47,594,000	34,437,000	1,034,000	488,000	244,000
Loans & Discounts	38,450,000	24,208,000	876,000	119,000	226,000
Coin, Gold Certificates & Bullion	2,003,000	1,119,000	37,000	2,500	3,000

There is thus a remarkable concentration of banking resources in South Africa. The system of big-branch banks has the advantages of greater security, solidity and ability to weather storms. It serves as a means of economising cash reserves and brings about a joint economy of capital, time and labour. Capital can be transferred easily and quickly to the places where the demand for it is greatest. Branch banking also tends to equalise the rates of interest among different localities in the same country. On the other hand, it has certain obvious disadvantages. Instructions are issued by the General Manager from time to time and circularised to the branch managers, who are given very little discretionary power and have to carry out the general instructions according to rules and regulations. The system is lacking in that adequate consideration is not given to the peculiar local conditions prevailing in any part of the country. It does not sufficiently provide for differences in conditions, industries, etc., in different parts of the Union. Moreover, the predominance of the Standard Bank and the National Bank over all other banks has greatly facilitated joint action on their part and the elimination of any active or effective competition in South African banking. In the words of the Comptroller of the Currency of the United States : " Branch banking is in its essence monopolistic The rapid economic development of America has been largely due to the policy of the pioneering unit banks."

CHAPTER 15.

PUBLIC FINANCE.

Finances of the Cape (1795-1870).—Under the Company the revenue collected by the Central Government (the Governor and Council of Policy) with a view to defraying the expenses incurred in connection with the general administration of the Cape, consisted of (a) commercial revenue, *i.e.*, revenue accruing to the Government in its capacity as a trader, a landlord, or a banker, and (b) revenue from taxes, such as a transfer duty, a tithe on grain brought into Cape Town, a duty on wine and brandy brought into Cape Town, monopoly leases or licences, customs duties, stamp duties and auction duties.¹

With the exception of a few modifications and additions this fiscal system remained in vogue in the Cape Colony under British rule until about 1834, when a number of significant changes were introduced. With regard to commercial revenue, trading profits ceased to be an item of revenue when the trade monopoly of the Company came to an end in 1795, but the rents payable on Government lands and the profits of the Lombard Bank continued to be important sources of revenue in the Colony. Rents were to be paid on loan or quitrent farms by way of "recognition" of the Government's ownership of the land.² At first the rents of loan farms yielded a larger revenue than quitrents, but with the general adoption of perpetual quitrent tenure instead of loan tenure and the sale of public land by auction after 1831, the land revenue of the Cape came to consist of quitrents and the proceeds of land sales.

As regards the Lombard Bank, inconvertible paper money was lent to farmers on mortgage security at 5 per cent. interest, 1 per cent. to cover the cost of administration and 4 per cent. to be paid into the Treasury as revenue. In 1808 the rate of interest was raised to 6 per cent. in respect of loans granted after that date, and at the same time a Government Discount Bank was established under the same management as the Lombard or Loan Bank. The discount rate was 6 per cent. and the rate of interest allowed on deposits fixed for 12 months or longer was 5 per cent. After 1814, however, no interest was payable on fixed deposits, and the whole of the interest on the loans of the Lombard Bank was to be paid into the Treasury, provision being made for the payment of fixed salaries to the bank officials out of general revenue. It was only in 1842 that the Loan and Discount Bank was finally liquidated.

Besides rents and bank profits, an increasing revenue was also derived from the letter postage which was gradually developed under British administration.

¹ See Part I., Chapter 5, p. 78.

² See Chapter on Land Tenure, p. 150.

With respect to taxes, customs duties were elaborated and increased from time to time, yielding a substantial revenue and ultimately becoming the principal source of revenue in the Colony; the transfer and stamp duties were retained in more or less the same form; the auction duties were increased from $3\frac{1}{2}$ and $1\frac{3}{4}$ per cent. to 5 and $2\frac{1}{2}$ per cent. on movable and immovable property respectively; the monopoly leases or licences granted under the Company were abolished and individual licences were issued and extended to various trades and professions; the tithe on wheat, barley, etc., brought into Cape Town was converted into a money payment and fixed in 1800 according to the market prices of the time; the inland duty on wine and brandy was retained, the duty on brandy being increased from 3 to 5 rds. in 1800; port and wharfage dues were also introduced and levied on all ships entering Table Bay or Simons Bay for purposes of trade or refreshments, and on all goods landed or shipped at the wharf.

Finally, fees of office or court and fines were also developed as a source of revenue.

On the other hand, the expenditures consisted mainly of the expenditures on the civil, judicial and military establishments, public buildings, roads and bridges, pensions, schools and churches. The Cape was only liable for purely colonial expenses, the cost of the Imperial troops in the Colony being borne by the British Government.

The following table shows the revenue and expenditure of the Cape Colony in 1832:

Revenue and Expenditure of the Cape Colony, 1832.

Revenue.		Expenditure.	
	£		£
Loan and Discount Bank	20,249	Civil Government ..	27,817
Land Rent.. ..	7,310	Judicial Departments ..	33,478
Postage	3,877	Revenue Departments ..	21,147
Stamp Duties	16,837	Public Works & Buildings	8,654
Customs Duties	15,224	Ecclesiastical Establish-	
Auction Duties	12,508	ment	7,577
Transfer Duties	7,227	Public Roads & Bridges	2,276
Tithes	4,373	Schools	2,375
Assessed Taxes*	17,540	Convicts and Prisoners ..	6,606
Fees and Fines	7,481	Pensions	5,443
		Medical Department ..	4,732

* These assessed or "opgaaf" taxes on persons, incomes, stock and produce, carriages, houses, etc., were levied at first by the local authorities, but after the abolition of the landdrosts and heemraden in 1828 these were collected and administered by the Central Government for a number of years and then abandoned altogether.

During the period from 1806 to 1834 the revenue of the Cape remained almost stationary, notwithstanding Colonial development and increased taxation, due to (1) depreciation of paper money as taxes were originally fixed in terms of rixdollars, (2) lower yield of liquor licences as compared with the sale of monopoly leases ("pagt"), (3) reduction of the garrison after 1815, (4) decline in the yield of auction duties as less recourse was taken to the sale of merchandise by public auction, (5) abolition of the commando tax in 1830, and (6) lower yield of the inland duty on wine owing to the decline in the wine export trade. The revenue was not keeping pace with the increase in expenditure, with the result that the Cape became involved in financial difficulties after 1820. In the late twenties the expenditure showed a constant tendency to exceed the revenue. Accordingly retrenchment was carried out in the public service in 1831, and again in 1834, with a view to reducing the expenditure and providing for a surplus for the gradual extinction of the public debt.

Subsequently, in 1838 and the following years, the improved financial condition of the Cape permitted of the reorganisation of the system of taxation. The vexatious taxes, such as the tithes and the whole group of "opgaaf" taxes, were abolished, while the profits of the Loan and Discount Bank ceased to flow into the Treasury after the liquidation of the Bank in 1842. Owing to the rapid growth of the import trade and the imposition of higher customs duties in 1842, customs revenue increased considerably and soon represented one-half of the total revenue of the Colony. As the Cape advanced in agriculture and stock farming, particularly wool-growing, other sources of revenue were also stimulated and rendered more productive, such as quitrents and the proceeds of land sales, transfer duties, licences, etc. Especially after 1852 the revenue increased very rapidly, as illustrated in the following table :

Ordinary Revenue and Expenditure of the Cape (1794-1870).

Year.	Revenue.	Expenditure.
	£	£
1794	49,000	68,000
1806	103,000	93,000
1820	145,000	136,000
1832	131,000	127,000
1852	289,000	252,000
1857	407,000	461,000
1870	668,000	642,000

In 1870 customs duties yielded £342,000 out of a total revenue of £668,000, quitrents £66,000, land sales £44,000, stamp duties and licences £65,000, transfer duties £35,000, and postage £26,000.

Local Finance in Cape Colony.—Under the Company local or “special” taxes were levied and collected by the local governments (landdrosts and heemraden) for the purpose of meeting the expenses incurred in connection with the special functions entrusted to them or undertaken by them. There were three varieties of local taxation in the four local divisions or districts of the Cape Colony in 1795, viz., a *poll* or *capitation tax* in the districts of the Cape (including Cape Town), Stellenbosch and Swellendam, a *house tax* in Cape Town, and a *tax on sheep and black cattle* in the districts of Stellenbosch, Swellendam and Graaff-Reinet.³

During the period from 1795 to 1813, when a commission was appointed to investigate the whole field of local taxation, many significant changes took place in the “special” taxes of the several districts as well as in the districts themselves. Four new districts were created during this period, viz., the districts of Uitenhage and Tulbagh in 1803, the Cape Country District (as distinct from Cape Town) in 1809, and the district of George in 1811; and a large number and variety of new local taxes were introduced.

In 1798 the *street tax* was introduced in Cape Town as an extraordinary tax by the Earl of Macartney and subsequently extended over the whole of the Colony. This tax was originally imposed for the purpose of defraying the expense of repairing the streets, but, with the exception of Cape Town, it was used for other purposes, such as the construction and maintenance of public buildings. In general the street tax consisted of an augmentation of the existing taxes by one-half.

The *commando tax* was introduced in 1812 in Cape Town and all the country districts with the exception of the frontier districts of Graaff-Reinet and Uitenhage. This tax was levied from time to time, also in the form of an augmentation of the existing taxes, with a view to defraying the expenses of commandos on the frontiers against the Kaffirs. The payment of the tax relieved the individual from the obligation of rendering personal military service or furnishing supplies. For example, in 1812 it was resolved to raise 61,000 rds. by means of the *commando tax*, the amount being apportioned amongst the various districts subject to the tax.

In some districts the tax on sheep and black cattle was also extended to goats, horses and pigs, or the capitation tax was also

³ See Part I., Chapter 5, p. 83.

made payable in respect of Hottentots and slaves above 16 years, the tax to be paid by the employer.

In addition, there was a variety of local taxes which were peculiar to certain districts, partly as a result of special local conditions and circumstances whereby such taxes were rendered necessary in some districts and not in others, such as :

- (a) a *vestry or church tax*, levied in those districts where a church was to be built—Swellendam, George, Graaff-Reinet, etc. ;
- (b) a *flying bridge toll*, levied in those districts where it was necessary to maintain "flying bridges" for the passing of rivers—Stellenbosch and Swellendam ;
- (c) a *kloof toll*, where it was necessary to keep roads through the kloofs in repair—Tulbagh and George ;
- (d) a *turnpike toll*, for the repair of roads in Swellendam ;
- (e) a *tax on produce* in Swellendam and George ;
- (f) *Market duties and contributions for the laying of water-pipes* in Cape Town ;
- (g) a *school tax* in Swellendam and Tulbagh, levied on the estimated value of the movable and immovable property of the inhabitants ;
- (h) a *tax on felled timber* in George ;
- (i) miscellaneous contributions in money or services or supplies.

By 1813 there were so many anomalies, disparities and inequalities in local taxation, and so many complaints, that a commission was appointed to investigate the prevailing system of local taxes. On the basis of the recommendations of the commission an almost uniform system of local taxation was introduced in 1814, allowance being made only for differences between Cape Town and the country districts, and between the country districts with special needs and others not having those needs. The taxes in Cape Town and the country districts were to be divided into ordinary and extraordinary taxes, the latter to continue only so long as the exigencies for which they were raised continued to exist ; and the taxes throughout the country districts were to be regulated on "uniform, avowed and universally known principles."

In Cape Town the ordinary taxes were to consist of (a) an *income tax* instead of the former capitation tax, and (b) the *house tax* or "*hearth money*" ; and the extraordinary taxes were the *commando tax*, which was to take the form of an augmentation of the income tax, and the *contributions to the water pipes*, which were to be assessed according to an approved classification of houses.

In the country districts, on the other hand, the ordinary taxes were to consist of (a) the *capitation tax* or “*head money*”, (b) the *tax on live stock*, and (c) the *tax on produce*, all of which were to be levied according to a fixed tariff; and the extraordinary taxes were the *commando tax* and the *contributions for wagons, horses, etc.*, required for the public service of the Government, which were likewise to be assessed by making a proportionate augmentation of the three ordinary taxes.

In addition, provision was made for the continuance of a few local taxes peculiar to some districts, such as the church tax, the flying bridge toll, the turnpike toll, and the tax on each wagon-load of timber in George.

With a few exceptions, such as the introduction of taxes levied at the shambles or at the town market or on licensed bakers in Cape Town and the imposition of an income tax or a tax on slaves in some of the country districts, the Proclamation of 1814 remained the basis of local taxation in the Cape Colony for many years. In their report of 1826 the Commissioners of Inquiry laid emphasis on the continuance of inequalities and iniquities involved in the administration of these local taxes, and recommended the abolition of many of them; but it was only after a number of years, after they had been taken over by the Central Government on the abolition of the old system of burgher councils or landdrosts and heemraden, that they disappeared from the scene, followed by the immovable property tax as the basis of local taxation in common with the established practice of all the leading countries, on the constitution of municipal and divisional councils beginning in 1836 and 1855 respectively.

Finances of the Cape (1870-1910).—The development of diamond mining occasioned a considerable increase in the revenue of the Cape. The revenue was more than doubled within the first five years and quadrupled by the end of the first decade after the opening of the diamond mines. From £668,000 in 1870 the revenue (excluding railway revenue) rose to £2,486,000 in 1881-2, the principal items being customs duties, stamp duties, transfer duties, licences (including diamond claim licences) and land revenue. The revenues were enhanced by the diamond industry in consequence of the increase in imports, legal and commercial transactions, land transfers, sales and leases of Crown land, etc. The exploitation of the Rand gold mines and the growth of Johannesburg further stimulated the growth of the revenue.

The following table shows the ordinary revenue and expenditure of the Cape between 1870 and 1910 :

Revenue and Expenditure⁴ of the Cape Colony (1870-1910).

Year.	Revenue.	Expenditure.
	£	£
1870	668,000	642,000
1881-82	2,486,000	2,435,000
1893-94	2,742,000	3,597,000
1898-99	3,416,000	4,830,000
1904-05	4,528,000	6,167,000
1909-10	4,828,000	5,646,000

The revenue from taxation increased rapidly as the result of general economic development and increased activities as well as the increase of existing taxes (customs duties, licences, etc.) and the introduction of new taxes (excise duties on spirits and beer in 1878 and 1884 respectively, income tax in 1904, etc.). There was also a considerable increase in postal and telegraph revenue, and to a smaller extent, land revenue, fees of office or court, fines and forfeitures, departmental receipts, etc.

As a general rule there was a surplus of revenue over current expenditure, the surplus being used for redemption of debt or the construction of railways and other public works. It was only in times of depression, such as 1865-70, 1881-6 and 1904-8, that there was a shortage of revenue. After 1886, when the Cape Government Railways began to yield a substantial net revenue every year, the fiscal system of the Cape came to be dependent upon the railways for a part of the revenue needed to defray the expenses of governmental administration, as reflected in the gap between revenue and expenditure in the above table. According to a statement prepared by the Controller and Auditor-General in 1891, the net earnings of the Cape railways, *i.e.*, excess of revenue over working expenses, from the commencement of Government ownership in 1873 to 1890 amounted to £4,636,000, while the interest actually paid on the borrowed capital amounted to £5,968,000, showing in 16½ years an excess of interest paid over the net earnings to the extent of £1,332,000, or an average deficit of about £80,750 per annum. In 1888 and 1889, however, the net earnings of the railways amounted to £822,000 and £849,000 respectively, *i.e.*, about 5¼ per cent. of the capital, while the average rate of interest was about 4 per cent. Henceforth the railways regularly earned a net revenue, over and above the interest charge, as a contribution toward the general revenue of the Colony. In this way the State railways in the Cape were used as an instrument of taxation.

⁴ Excluding railway revenue and expenditure.

Public Debt of Cape Colony prior to 1910.—The first public debt of the Cape consisted of inconvertible paper money (a “forced loan”) which was issued by the Cape Government on various occasions between 1782 and 1825.⁵ In June, 1825, when the English coinage was introduced into the Colony and the value of the paper rixdollar was fixed at 1s. 6d., the amount of Government notes outstanding was 3,099,204 rds., of which 1,345,000 rds. represented the capital of the Lombard Bank and the remainder had been issued for the service of the Government, mainly the construction of public works and buildings. The process of redeeming these notes was gradually carried out by the Cape Government, the Imperial Government lending for the purpose £92,775 free of interest and rendering assistance in other ways. Besides the amount of £92,775 money was also borrowed from the Imperial Government in times of financial stringency, especially after 1820 when the expenditure tended to exceed the revenue. Loans were also obtained from the commissariat chest and various local boards, and in June, 1825, the sum of £18,750 was borrowed from the English East India Company at 4 per cent. interest. The result was that, at the end of 1835, the public debt of the Cape Colony amounted to £265,000. Then, with more economical administration, provision was made for the redemption of debt until by the end of 1845 the Cape was entirely free from debt.

In 1859 debt was again incurred by the Cape Government, the first loan of £80,000 being floated in London for the purpose of assisting immigration. This was followed by a large number of other loans for harbours and other public works, public buildings, immigration, deficits during the depression of the sixties, etc. By 1872 the public debt of the Cape amounted to £1,591,000. As the credit of the Colony was not yet established abroad, the loans were raised at 6 per cent. interest and a definite period was fixed for repayment, the period being a comparatively short one in the earlier years. In some cases provision was also made for a sinking fund and five commissioners were placed in charge of the sinking fund operations, but after a number of years this was not strictly adhered to. After 1872, when Responsible Government was granted to the Cape and its financial position improved considerably as a result of the diamond industry, the credit of the Colony was rising rapidly and large sums of money were borrowed at $4\frac{1}{2}$ and 4 per cent. for the purchase of the private railways in existence and the construction of new railways and other works.

⁵ c.f. Chapter on Money and Banking, p. 356.

The public debt of the Cape advanced with rapid strides after 1875, as illustrated in the following table :

Public Debt of the Cape Colony (1859-1910).

Year.	Amount of Debt.					
	£					
1859	..	..	..	..	..	80,000
1875	..	..	..	..	..	2,790,000
1880	..	..	..	..	..	11,392,000
1890	..	..	..	..	..	23,749,000
1900	..	..	..	..	..	31,098,000
1910	..	..	..	..	..	52,566,000

The greater proportion of the public debt of the Cape was incurred in connection with railways and harbours, *i.e.*, reproductive works earning their own interest, and the remainder on public buildings, war, deficits in periods of depression, etc. As the credit of the Colony improved, the rate of interest declined from 6 per cent. in 1859-72 to $4\frac{1}{2}$ and 4 per cent. in 1872-90, $3\frac{1}{2}$ per cent. in 1890-94 and 3 per cent. in 1894-1907, rising again to 4 per cent. in 1907 on account of heavy borrowings in a time of severe economic depression. As suitable opportunities arose, conversions and consolidations of the various outstanding loans were effected with a view to creating uniform loan issues at lower rates of interest and with other favourable conditions ; and after 1897 better provision was made for redemption and the administration of a sinking fund under a Board of Commissioners.

Finances of Natal prior to 1910.—In Natal customs duties were from the outset the main source of revenue. At first Natal was subject to the same tariff as in force at the Cape, but after the introduction of representative government in 1856 it developed its own tariff policy with the dual purpose of obtaining revenue for defraying the expenses of administration, and promoting the trade with the two republics in the interior by levying lower duties on imported goods than those imposed in the Cape Colony. Moreover, as early as 1849 a tax of 7s. per annum was imposed upon each hut occupied by natives in the Colony of Natal ; and, as in the Cape, land was given out on quitrent tenure, the quitrent being fixed according to the value of the land or according to a rate laid down by Proclamation. Later on provision was also made for the sale of Crown land by public auction and the leasing of certain classes of land for grazing purposes.

These three items of revenue, *viz.*, customs duties, hut tax and land revenue, were the principal items for a long period of years.

For example, in 1856, out of a total revenue of £29,452, the hut tax yielded £10,403 and customs duties £10,319. As the import trade of Durban expanded, customs revenue increased, yielding £180,000 out of a total revenue of £483,000 in 1884 and £567,000 out of £1,569,000⁶ in 1904-5. The other sources of revenue, such as the hut tax, land revenue, transfer duty, stamp duties, excise duties, licences, etc., also became more productive as the Colony of Natal was extended and developed. After 1870 the Kimberley diamond mines caused a rapid increase of revenue, and after 1886 the Rand gold mines further stimulated the enhancement of the revenue, as illustrated in the following table :

Revenue and Expenditure⁷ of Natal (1846-1910).

Year.	Revenue.	Expenditure.
	£	£
1846	3,095	6,905
1855	28,675	28,311
1870	127,000	118,000
1882-83	483,000	472,000
1889-90	798,000	862,000
1897-98	965,000	1,177,000
1905-06	1,709,000	2,459,000
1909-10	1,661,000	2,483,000

Railways.—The Natal Government Railways, like the Cape Railways, were operated at a profit and contributed a substantial net revenue to the Treasury every year for the payment of ordinary expenditures. The fiscal system of Natal also came to be dependent upon the railways for a comparatively large part of the revenue needed for current expenses, as reflected in the gap between revenue and expenditure after 1889 in the above table. For example, in 1905 the railway receipts amounted to £2,052,000 and the expenditure to £1,307,000, leaving a net revenue of £745,000 or $5\frac{3}{4}$ per cent. of the capital expended on the railways.

Public Debt.—In 1860 the first Natal loan of £50,000 was raised for the purpose of improving the Durban harbour. By 1872 the public debt had risen to £263,000, of which £163,000 was incurred for the harbour and the remaining £100,000 for the importation of Indian coolies. These loans were contracted at 6 per cent. interest, and provision was made, through a sinking fund, for redemption at the rate of 2 or 3 per cent. After 1876 the Natal Government borrowed large sums of money for the construction

⁶ Excluding railway revenue.

⁷ Excluding railway revenue and expenditure.

of railways and other public works, and to a smaller extent for war expenses and Coolie immigration. The public debt advanced rapidly, as follows :

Year.						Debt. £
1860	..	..	..	..	..	50,000
1872	..	..	..	..	..	263,000
1886	..	..	..	..	..	3,973,000
1900	..	..	..	..	..	9,019,000
1910	..	..	..	..	..	22,687,000

The great bulk of the public debt of Natal was incurred in connection with railways and the Durban harbour, the remainder being accounted for by public buildings, war, etc. It was primarily a reproductive debt, earning its own interest. As the credit of Natal improved, the rate of interest on new Government loans declined from 6 per cent. in 1860-72 to 5 and 4 per cent. in 1872-87, $3\frac{1}{2}$ per cent. in 1890 and 3 per cent. in 1898, but rose again to $3\frac{1}{2}$ per cent. in 1904 and 4 per cent. in 1908-10, owing mainly to the heavy borrowings after the Boer War for the construction of railways and other public works. After 1886 provision was made for redemption in the case of a few loans only. In 1904, however, it was realised that the arrangements for debt redemption were inadequate, whereupon Public Debt Commissioners were appointed to whom certain annual payments were to be made out of general revenue for the purpose of redeeming debt.

Finances of the Transvaal prior to the Union.—From the time of its inception until the opening of the gold mines on the Rand the South African Republic was subject to an almost continuous financial stringency. Its development was retarded not only by internal discord and dissension among the different communities both in regard to political and ecclesiastical matters, but also by petty wars with the surrounding native tribes. These internal troubles and Kaffir wars continually exhausted the small revenue at the disposal of the Government. The main sources of revenue during this period were taxes on land and cattle⁸, transfer duties, native taxes, licences, fines and fees of court, and profits on the sale of ammunition which was conducted as a Government monopoly. In general the farmers were averse to the payment of taxation, this aversion to taxation being inherent in any semi-civilised or semi-developed state.

At first, whenever the Treasury was exhausted, the Republican Government issued "Mandaten" or Treasury Bills in order to

⁸ A land tax at the rate of 7s. 6d. to 30s. on each farm according to quality, and a tax of 1s. on every 50 head of horned cattle.

meet certain immediate debts incurred for the purchase of ammunition or connected with the payment of the salaries of officials. These "Mandaten," however, which were to be redeemed as the taxes were collected and revenue became available, did not prove to be a popular method of deferred payment and were in any case inadequate to meet the increasing needs of the Government. In 1865, as the result of civil war and other disturbances, the Republic found itself in a critical financial position. The exchequer was empty, salaries were in arrear, and taxes of all kinds were outstanding and practically irrecoverable. Accordingly the Volksraad resolved, as a temporary expedient, to issue paper money to the value of 140,000 rds. (or £10,500). In 1866 this process was continued and by the end of 1870 the amount issued was over £73,000.

In 1873, however, President Burgers succeeded in obtaining a loan of £63,000 from the Cape Commercial Bank at Cape Town, for the purpose of redeeming the paper money at par. This loan of £63,000, bearing interest at the rate of 6 per cent., was to be repaid within twenty years in four instalments. With a view to providing for the redemption of this debt a sinking fund was established in 1873, under the supervision of three commissioners including the Treasurer. In 1876 a further loan of £18,000 was contracted at the rate of 8 per cent., payable in 21 months, as the former amount was not sufficient to redeem all the notes in circulation.

In the meantime, however, the country was once more drifting into war and insolvency. War was declared against a native chief, Secocoeni, who had refused to pay taxes and molested the farmers in his neighbourhood, but the burgher forces were repulsed. Discord and faction had also spread amongst the people, and the majority of the burghers refused to pay their land and other taxes. To carry on the government the President and Executive borrowed money on their own personal security to the amount of £20,000, but this was soon appropriated and the Treasury was empty again, the result of which was the annexation of the Republic by Great Britain.

Under British administration the revenue was considerably enhanced, from £77,000 in 1878 to £174,000 in 1880, while the expenditure rose from £89,000 to £145,000. During the first four years of the Second Republic (1881-5) the finances again became deranged. The public revenue and the credit of the State were declining, and there was general stagnation in business and trade, in sympathy with the severe depression in the other territories in South Africa. But all fears of financial embarrassment were

dispelled by the discovery and development of the Witwatersrand gold mines, which opened up a wide vista of national wealth and permanently lifted the Transvaal from a position of almost continuous financial stringency to that of superabundant revenue, as illustrated in the following table :

Revenue and Expenditure⁹ of the Transvaal (1867-1910).

Year.				Revenue.	Expenditure.
				£	£
1867	..	..	..	31,500	30,800
1875-76	..	..	..	64,000	69,000
1880	..	..	..	174,000	145,000
1884-85	..	..	..	162,000	187,000
1892	..	..	..	1,256,000	1,188,000
1898	..	..	..	3,330,000	3,477,000
1902-03	..	..	..	4,071,000	3,471,000
1906-07	..	..	..	5,025,000	5,278,000
1909-10	..	..	..	6,004,000	5,080,000

The gold industry of the Rand contributed to this sensational increase in the revenue of the Transvaal after 1886 in consequence of prospecting and diggers' licences and the increase in imports, legal and commercial transactions, land transfers, sales and leases of Government land, etc.

Imports and Customs Revenue.—In 1885-6 the imports into the Transvaal amounted to £530,000, and the revenue from customs duties £39,000, whereas in 1892 the total value of imports was £3,499,000 and the customs revenue £441,000, as compared with a total revenue of £1,256,000 from all sources. The imports rose to £12,500,000 in 1896 and £17,307,000 in 1905-6, the customs revenue in the latter year amounting to £1,699,000 out of a total revenue of £4,670,000.

Mining Revenue.—From the outset the State derived a considerable revenue from the mining industry in the form of prospecting and diggers' licences. Under the Consolidated Gold Law of 1885 the right to all minerals was vested in the State and provision was made for an equitable distribution of the prospective mineral wealth of the country as between the Government, the owner of the land, the prospector or discoverer, and the public. The owner and the prospector were entitled to a certain number of claims, and the remainder of the area was declared open to the public for the pegging of claims, subject to the payment of licence fees to the Government. Prospectors' licences were issued at 5s. per month,

⁹ Excluding railway revenue and expenditure.

and diggers' licences at 15s. or 20s. (with machinery). The owner was entitled to (1) a "mynpacht" or mining lease over not more than one-tenth of the farm or estate at an annual rent of 10s. per morgen; (2) "owner's claims" in proportion to the extent of the farm but not exceeding ten in number, and (3) one-half of the proceeds of diggers' or prospectors' licences, and three-fourths of the "stand" (or building) licences; and the prospector or discoverer was entitled to six claims free of licence.

Under the Transvaal Precious and Base Metals Act of 1908 the principles of the Republican Gold Law were adhered to, with a few modifications only. The right to mine for precious metals underneath any place reserved from pegging and prospecting by former mineral laws, viz.: the so-called "bewaarplaatsen," was vested in the State, and the Government was empowered to lease the right to mine under such areas on terms which it might deem most advantageous. The Government was also empowered to lease to any person the exclusive right to mine for precious metals on certain public diggings, the consideration payable to the Government in respect of such leases being an agreed share of the annual profits on a sliding scale basis.

Moreover, in 1902 a tax of 10 per cent. of the net profits of the gold mines was introduced in the Transvaal; and under the Transvaal Precious Stones Ordinance of 1903 the State was entitled to a six-tenths share of any diamondiferous land that was proclaimed a mine. In accordance with this provision the Transvaal Government became a partner, to the extent of 60 per cent. of the net profits, in the Premier Diamond Mine which commenced operations in that year.

Mining revenue increased from £412,000 in 1892 to £507,000 in 1902-03, £751,000 in 1905-06 and £1,340,000 in 1909-10. In the latter year the profits tax yielded £895,000, licences and miscellaneous dues, £241,000, the Government's share in the profits of the Premier Diamond Mine, £195,000, etc.

Other Items of Revenue.—Other sources of revenue in the Transvaal were native taxes (poll tax and pass fees), stamp duties, transfer and estate duties, licence taxes, and land revenue.

Boer War.—The Republican Government financed its war operations mainly in the form of commandeering provisions, horses, wagons, ammunition, etc., and issuing notes of various denominations from £1 upwards, declared a legal tender within the Republic and secured by all the fixed property of the State. After the War a sum of money was indeed allocated for the purpose of honouring receipts given for war requirements by Republican

officers and redeeming the outstanding notes, but a large number of these notes were not redeemed.

Reconstruction and Development Loans.—In 1903 a loan of £35,000,000, bearing interest at the rate of 3 per cent. per annum, was raised in England for reconstruction purposes in the Transvaal and the Orange River Colony. It was called the Development Loan and guaranteed by the Imperial Government, on condition that provision was made for redemption at the rate of 1 per cent. per annum. Accordingly a sinking fund of 1 per cent. was attached to the loan, redeemable between 1923 and 1953. Of this Loan the sum of £5,000,000 was appropriated for repatriation and compensation, £13,520,000 for the acquisition of the railways in those territories, £8,000,000 for the construction and improvement of railways and other public works, £2,500,000 for land settlement, £2,500,000 for the former debt of the South African Republic and £542,000 to cover the deficit of the Transvaal in 1901-2, and £1,561,000 for compensation to loyalists in Cape Colony and Natal.

In 1908 a further loan of £5,000,000 at 3 per cent. interest was raised in England for the Transvaal, redeemable in 1958 and likewise subject to a sinking fund of 1 per cent. When the Union was formed in 1910, the public debt of the Transvaal amounted to £32,318,000.

Railways.—The railways of the Transvaal and the Orange River Colony were united and administered as a joint concern by the Inter-Colonial Council under the name of the Central South African Railways. The financial results of the railways were very favourable and amply justified the large expenditure required to carry out the expansion and improvement of the system. During the period of Crown Colony administration railway rates were lowered to an extent which represented the remission of £1,500,000 of annual taxation by the railways, while the net earnings of the railways were sufficient to meet the interest and sinking fund charges payable upon the whole of the £35,000,000 loan, and in addition make a small contribution towards defraying the cost of other services common to the two Colonies.

Finances of the Orange Free State prior to the Union.—In the O.F.S., as in the Transvaal, financial stringency had led to the issue of paper money by the Government. At first, in 1865, notes to the value of £30,000 were issued and lent to the Bloemfontein Bank at 6 per cent. interest, in order to provide a substitute for the Standard Bank notes which were being withdrawn from circulation. In 1866, owing to the Basuto War, the Treasury was empty and

many of the burghers were not in a position to pay their taxes, with the result that extraordinary measures had to be taken for the purpose of defraying public expenditures. An attempt was made to contract a loan of £30,000 for 3 years at 8 per cent. per annum, but on account of the general lack of security in the country the attempt did not meet with success. Accordingly the Volksraad resolved to issue notes to the amount of £100,000, of which the sum of £43,000 was appropriated to defray expenses incurred in connection with the Basuto War, and the remaining £57,000 was lent out to farmers at 6 per cent. on mortgage of landed property.

As a result of financial difficulties during the three years 1866-68, when the revenue amounted to £152,000 and the expenditure to £239,000, the O.F.S. was burdened with a public debt of £105,000 in 1868. This debt was composed of a loan of £50,000 from the Bloemfontein Bank, notes to the value of £39,000 (out of the issue of £43,000) still in circulation and £16,000 in the form of outstanding accounts.

By 1870 even the annual revenue of the O.F.S. amounted to £64,000 only. The principal sources of revenue were quitrents on farms, transfer dues, stamp duties, licences, tolls, succession duties and taxes on natives. After 1870, however, owing to the stimulus of the diamond mines, the revenue began to increase more rapidly. By 1874 the revenue amounted to £101,000 and by 1882-3 to £212,000, with substantial surpluses in most years. In the meantime the public debt of the O.F.S., including the outstanding Government notes, had been extinguished with the assistance of surplus revenue and the sum of £90,000 received from the British Government as compensation for the waiving of all claims to the diamond-field territory. Henceforth surplus revenue was appropriated for the construction of public works and buildings.

The following table shows the growth of the revenue and expenditure of the O.F.S. up to the time of Union :

*Revenue and Expenditure*¹⁰ of O.F.S. (1856-1910).

Year.				Revenue.	Expenditure.
				£	£
1856	..	..	..	15,135	15,328
1870	..	..	..	64,000	53,000
1882-83	..	..	..	212,000	200,000
1890-91	..	..	..	378,000	313,000
1898-99	..	..	..	393,000	441,000
1903-04	..	..	..	820,000	755,000
1909-10	..	..	..	991,000	975,000

¹⁰ Excluding railway revenue and expenditure.

The development of the Rand and the gold industry likewise contributed to an increase in the revenue. Prior to 1889 customs revenue was not of much importance, but in that year a Customs Convention was concluded between the Cape and the O.F.S., in accordance with which the Cape Colony paid over to the O.F.S. the customs revenue collected by it on goods imported through its harbours and destined for the O.F.S., which also had to impose on goods imported through Natal the same duties as were levied in the Cape. Under this agreement the O.F.S. received an annual customs revenue of over £100,000, amounting in 1894 to £113,000 and in 1898 to £161,000 out of a total revenue of £393,000, and in 1909-10 £342,000 out of a total of £991,000.

After 1878 the O.F.S. also derived an increasing revenue from its diamond and other mines. Prior to the Boer War the mining revenue consisted of claim licences (10s. per month), a tax on claims and "stands" and a diamond registration fee, amounting altogether to £3,630 in 1880-81, £16,813 in 1890-91 and £9,789 in 1898-9; but after the War mining revenue increased to £20,857 in 1905-6 and £58,058 in 1908-9. This increase was due to the Government's four-tenths share in any new diamond mine on private land, under the Precious Stones Ordinance of 1904, a tax of 3d. per ton of coal mined which was reduced to 1½d. in 1907, and the tax of 7 per cent. of the net profits of the old diamond mines imposed in 1907.

Public Debt.—In 1898 the public debt of the O.F.S. amounted to £1,830,000, which had been incurred in connection with the purchase of the railways in the Republic that had been originally constructed by the Cape Government. At the time of Union the debt of the O.F.S. amounted to £8,932,000, the great bulk of which had been incurred for the purpose of reconstruction and development after the War out of the Guaranteed Loan of £35,000,000.

The Finances of the Union (1910-23).—On the establishment of the Union, all the revenues of the several Colonial Governments, and all the railways, harbours and ports belonging to the Colonies were vested in the Union Government. The railways and harbours were placed under separate management and became an independent organisation, provision being made also for a separate budget. A system of Provincial Administrations was instituted, but the financial relations between the Union and Provincial Governments were not rigidly defined as in the federal constitutions of the United States, Australia, etc. Provision was made for an elastic system of finance by assigning the final determination of those relations to the Union Parliament, which was to effect such

readjustments as altered conditions and circumstances might demand.

(a) *Union Finance* (exclusive of the railways and harbours).—The period since Union has been an exceptionally unsettled period in South African finance as the result of the operation of several important factors. In the first place the Union of the four Colonies brought about the unification and reorganisation of the Colonial departments—the substitution of one for four administrative systems.

Secondly, the outbreak of the European War in August, 1914, followed by the South African Rebellion, occasioned a serious disturbance in trade, industry and revenue. The abnormal war conditions created new and difficult problems. The conquest of German South-West Africa and the other war operations of the Union involved an expenditure of over £30,000,000, paid in part out of ordinary revenue but mainly out of loan funds. The interest on the war debt and the increase in general expenditure owing to the enhanced cost of living and of materials rendered increased taxation necessary; but the aftermath of the War presented even greater difficulties than the War itself.

Thirdly, the general economic depression which set in toward the end of 1920 caused a substantial reduction in revenue, especially the customs revenue, the revenue from diamonds and diamond mines, and the revenue from stamp duties and fees. The expenditure could not be sufficiently reduced to meet the diminution in revenue, and the result has been a series of deficits.

The outstanding feature in Union finance has been the considerable increase in expenditure, as illustrated in the following table:

Ordinary Revenue and Expenditure of the Union (1911-23).

Year.	Revenue.	Expenditure.	Surplus.	Deficit.
	£	£	£	£
1911-12	17,228,000	16,547,000	681,000	—
1914-15	14,265,000	16,253,000	—	1,988,000
1917-18	19,657,000	18,959,000	698,000	—
1919-20	26,886,000	24,426,000	2,460,000	—
1920-21	29,676,000	30,076,000	—	400,000
1921-22	28,884,000	30,091,000	—	1,207,000
1922-23	27,235,000	28,233,000	—	998,000
Total for 1910-23	£268,224,000	£267,061,000	£6,443,000	£5,280,000

Thus there was a net surplus of £1,163,000 over the thirteen-year period from 1910 to 1923. There were deficits in five years, viz.: 1913-14, 1914-15, 1920-21, 1921-22 and 1922-23.

During the ten-year period from 1911-12 to 1921-22 the ordinary expenditure of the Union was increased by 83 per cent. and the revenue by 68 per cent., whereas the population was subject to an increase of 20 per cent. only. The main causes of the considerable advance in expenditure were the following :—

- (1) the interest on the war debt of about £30,000,000 amounting to about £1,500,000 per annum ;
- (2) military pensions which occasioned an expenditure of £1,273,000 in 1920-21 and £1,177,000 in 1921-22, as compared with £29,000 in 1913-14 ;
- (3) the cost of defence which amounted to £1,520,000 in 1919-20 and £1,324,000 in 1921-22, as compared with £457,000 in 1911-12 ;
- (4) enlargement of the staff in all the departments of the Union Government (excluding the Department of Railways and Harbours) from 31,000 in 1911-12 to 38,000 in 1921-22, and a general rise in salaries and wages, which enhanced the expenditure to the extent of £5,000,000 during those ten years, viz. : from an average of £4,854,000 in 1911-14 to £9,895,000 in 1921-22 ; and
- (5) higher prices of materials and requisites purchased by the Government in connection with its activities.

The enhancement of the expenditure necessitated the extension of existing forms of taxation and the introduction of new forms. The customs duties on spirits, ale, beer, cider, coffee, tea, sugar, boots and shoes, etc., were increased, and the general *ad valorem* rate was raised from 15 to 20 per cent. The excise duties on spirits and beer were raised on three occasions since 1913, viz. : in 1916, 1919 and 1921. The stamp and estate duties were also increased.

In addition, a whole series of new taxes were introduced such as excise duties on sugar, tobacco, matches, playing cards and vinegar, an elaborate income tax (including a supertax and a dividend tax), an excess profits tax, and a diamond export duty.

Up to 1920 the increase in expenditure was generally more than covered by increased taxation and the greater productivity of taxation in consequence of favourable conditions in agriculture, industry, mining and commerce. In 1920-21, however, the expenditure increased more rapidly than the revenue, and the result

was a deficit of £400,000. In 1921-22 there was a diminution in revenue as a result of the depression and a further increase in expenditure. An attempt was made to reduce the deficit that would occur by appropriating for the current expenditure certain capital receipts, such as the proceeds from the sale of Crown lands and the revenue from the Government gold mine leases and the "bewaarplaatsen", which should really have been paid into the Loan Account to meet capital expenditure. In spite of this the year 1921-22 closed with a deficit of £1,207,000. The year 1922-23 also showed a fairly large deficit on account of the diminished yield of the income and excess profits taxes and the delay in the revival of agriculture, industry, trade and diamond mining. The Government resolved to economise and retrench as far as possible, but did not succeed in bringing about any considerable economy.

In 1923-24 the revenue improved owing to the great prosperity of the gold-mining industry and the increased export of diamonds. However, in spite of the appropriation of capital receipts to the amount of £525,000, the year closed with a deficit of £22,000.

Public Debt of the Union.—The Union Government commenced in 1910 with a gross debt of £116,037,000, or an unproductive debt of £36,000,000. By March 31st, 1920, the gross debt of the Union had been increased to £173,905,000, and by March 31st, 1924 to £208,244,000—an increase of 80 per cent. in 14 years. The capital or extraordinary expenditures during this period amounted to £114,789,000, but the gross debt was enhanced by £92,207,000 only in view of (a) the appropriation of the so-called "loan revenues" from the gold-mine leases, "bewaarplaatsen", sales of Crown lands and of surplus war material and supplies, repayments of advances made to the Provinces, irrigation boards, land settlers, etc., and (b) the application of moneys out of the Sinking Fund towards the redemption of maturing bonds.

The bulk of the gross capital expenditure since the Union was incurred in connection with war and defence and the railways and harbours, viz.: £32,500,000 and £42,000,000 respectively. Furthermore, the sum of £16,000,000 was expended on land settlement, irrigation and the Land Bank, £12,000,000 in loans to the Provinces and local authorities, £6,000,000 on public works and buildings, and £4,000,000 on telegraphs and telephones.

By adopting the incidence of the interest charge as the only appropriate basis for determining the relation between the reproductive and the unproductive debt, the public debt of the Union on March 31st, 1924, was found to be composed of a reproductive

debt of £138,066,000 and an unproductive debt of £70,178,000. The net unproductive debt of the Union on that date can be obtained by deducting from the gross debt of £208,244,000 the reproductive debt of £138,066,000, the amount of £11,250,000 in the Sinking Fund, and the balance of £4,798,000 on the Loan Account, leaving an amount of £54,130,000.

Thus the debt transactions of the Union Government since 1910 may be summarised in the following manner :—

Heading.	1910.	1924.	Percentage Increase.
	£	£	%
Gross Debt	116,037,000	208,244,000	80
Unproductive Debt	36,000,000	70,178,000	95
Net Unproductive Debt ..	28,432,000	54,130,000	90

(b) *Railway and Harbour Finance*.—Under the Union Constitution it was provided that the railways and harbours were to be administered with a view to promoting the agricultural and industrial development of the Union, and were not to be used as instruments of taxation as had been the case under Colonial administration. During the first three years of the Union the railways and harbours earned large profits, and accordingly substantial reductions were made in rates and fares. Out of the profits earned during those years, the sum of £3,179,000 was paid to the Union Treasury as ordinary revenue. By 1913 the provisions of the Constitution had been carried out, and the earnings had been brought down to the level of the expenditure.

The outbreak of the European War in 1914 marked the inauguration of a long period of abnormal conditions, occasioning a serious disturbance in the cost of operation as well as in trade and traffic. In an effort to balance revenues and expenditures various expedients were devised, such as : (a) augmenting the revenue by increases in rates and fares ; (b) making smaller appropriations for depreciation and renewals ; and (c) reducing train mileage. In spite of these measures, however, the result was a continuous series of deficits since 1917. On March 31st, 1922, there was an accumulated deficit of £2,189,000.

The origin of the railway and harbour deficits may be traced primarily to the exceptional rise in the cost of operation since the outbreak of the War, as reflected in the following table of statistics :

Gross Earnings and Expenditure of the Union Railways, Harbours and Steamships (1911-24).

Year.	Earnings.	Expenditure.	Surplus.	Deficit.
	£	£	£	£
1911-12	13,227,000	11,687,000	1,540,000	—
1914-15	12,830,000	13,374,000	—	544,000
1917-18	15,727,000	15,958,000	—	231,000
1919-20	20,855,000	21,454,000	—	599,000
1920-21	26,243,000	27,293,000	—	1,050,000
1921-22	22,533,000	24,123,000	—	1,590,000
1923-24	23,621,000	22,170,000	1,451,000	—
Total for 1910-24	£240,295,000	£240,041,000	£5,944,000	£5,691,000

Thus there was a net surplus of £253,000 over the period from 1910 to 1924. The enormous increase in the gross current expenditure of the railways and harbours (including the three steamships in operation since 1919) from £11,687,000 in 1911-12 to £27,293,000 in 1920-21 is to be attributed partly to the extension of the railway net from 7,500 miles in 1911 to 9,500 miles in 1921, and to the denser traffic, but mainly to the increased cost of living and of materials. The war bonus was introduced in 1916 and considerably extended in 1918. In 1919 and 1920 the salaries and wages were appreciably increased, and in addition the eight-hour day was instituted. These three factors alone enhanced the expenditure by several million pounds sterling per annum. The higher prices of goods and materials also helped to swell the expenditure.

The great problem which confronted the Railway and Harbour Administration was, at first, how to cover the rapidly-increasing expenditure. The Administration resorted to increasing the rates and fares from time to time until toward the end of 1920 the average increase was about 58 per cent. above the pre-war rates. This was the turning point and the railway traffic could not bear any further increase in rates. The depression brought about a decrease in traffic and consequently in earnings, and the prevailing high rates contributed towards the further diminution of traffic. Then the problem came to be how to diminish the expenditure according to the decrease in earnings since the end of 1920, in consequence of the economic depression, and how to mitigate the evil effects of excessive rates. Accordingly the Administration decided to reduce the expenditure by gradually eliminating the war bonus and discharging a large number of employees over a period of two years,

and also to lower the rates in certain necessary cases, e.g., bunker and export coal, grain, cement, guano, etc.

The expenditure was reduced from £27,293,000 in 1920-21 to £22,170,000 in 1923-24, in spite of an increase in railway mileage, while the revenue improved appreciably in 1923 owing to an increase in traffic, leaving a net surplus of £1,451,000 in 1923-24 and reducing the accumulated deficit to £770,000. Further reductions in rates and fares have been made, and a surplus is again expected at the end of the current year 1924-5, estimated at more than £200,000.

(c) *Provincial Finance*.—Provincial finance really dates from April 1st, 1913. From the date of Union until April, 1913, when the Financial Relations Act came into operation, all the funds required by the Provinces were provided by grants from the Union Treasury.

Subsequent to that date the funds required by the Provinces to meet their normal or recurrent expenditure upon matters entrusted to them have been derived from the following sources :

- (a) subsidies from the Union Government to the extent of one-half of their normal or recurrent expenditure, with special provisions in certain cases ;
- (b) revenues assigned to the Provinces but levied and collected by the Union Treasury, such as transfer duties, liquor licences, and native pass fees in the Transvaal ;
- (c) revenues transferred to the Provinces, such as school and hospital fees, auction dues, totalisator tax, professional and trading licences, and certain other licences ; and
- (d) such other revenues as may be raised by the Provinces by virtue of their authority to levy direct taxation.

The following table shows the revenue and expenditure of the four Provinces since 1913-14 :

Year.			Revenue.	Expenditure.	Surplus.	Deficit.
			£	£	£	£
1913-14	..	..	3,482,000	3,324,000	158,000	—
1917-18	..	..	4,334,000	4,255,000	79,000	—
1919-20	..	..	7,059,000	6,388,000	671,000	—
1920-21	..	..	8,075,000	8,417,000	—	342,000
1921-22	..	..	8,420,000	8,819,000	—	399,000

The enhancement of the current expenditure of the Provinces by 165 per cent. during the nine-year period under review was due mainly to the considerable increase in the expenditure on primary

and secondary education from £2,065,000 in 1913-14 to £6,677,000 in 1921-22, which again is to be attributed partly to the extension of educational facilities and the increase in the number of schools from 6,600 in 1913 to over 8,000 in 1922 and in the number of teachers from 13,000 to 19,000, but mainly to the rise in salaries as a result of the increased cost of living and to the higher prices of materials and requisites. There was also a substantial advance in the expenditure on general administration, roads, bridges, hospitals and poor relief.

During the last six years the great problem of the Provincial Administrations has been how to cover the rapidly increasing expenditure with the limited sources of revenue at their disposal. Under the Union Constitution and the Financial Relations Act the Provinces have been entrusted with activities and functions which necessarily entail an increase in expenditure from year to year, on account of their strong natural tendency to advance with the growth of population and the progress of civilisation, whereas they are practically confined to stationary sources of revenue. Moreover, the Union subsidies to the Provinces were curtailed in 1921 and further reduced in 1922. The result has been that the Provinces have had to search for new sources every year in their attempt to cover the increased expenditure. More than a dozen new taxes have been introduced in one or more of the Provinces since 1914, such as taxes on entertainments, wheels, betting, bookmakers, admission to racecourses, tattersalls, immovable property, companies, persons, employers of labour, etc. The Provinces have now reached a stage where they cannot impose additional taxation without incurring violent opposition. They have exhausted almost every available source of revenue, and yet deficits have become the general rule since 1920. The Union Government has realised the gravity of the situation and is contemplating a revision of the system of Provincial finance.

CHAPTER 16.

TAXATION.

INDIRECT TAXATION.

(1) *Customs Duties* ¹.—As early as 1789 a duty of 5 per cent. was imposed upon all goods imported into or exported from the Cape, except by the Dutch East India Company. Under the British Government the customs duties were elaborated and destined to become the principal source of revenue in the Colony. A system of preferential import duties was instituted not only to protect British trade and shipping between the Cape Colony and the Mother Country, but also with a view to securing a substantial revenue. For example, in 1806 British goods imported in British ships were rendered liable to a duty of 3 per cent., whereas foreign goods brought in British ships and British goods brought in foreign ships were subject to a duty of 7 per cent., and foreign goods imported in foreign ships had to pay 10 per cent. Moreover, export duties were levied on all articles of produce exported from the Cape, such as 5 rds. for every leaguer of wine or brandy, 16 stivers for every muid of corn, barley, peas or beans, 3½ stivers for every ox hide, 1 rd. 32 stivers for every 100 lbs. of ivory, etc.

The export duties on Cape produce were abolished by Sir John Cradock in October, 1811, in view of the fact that they acted as a check on exports of Colonial produce, but the preferential import duties remained in force at the Cape in more or less the same form until they were abolished by the Customs Tariff Act of 1855. Provision was then made for specific and *ad valorem* import duties for the purpose of revenue only. Henceforth, the tariff was used almost entirely as a source of revenue, and was in fact the most important source of revenue in the Colony. Whereas in 1806 customs duties yielded only 137,000 rds. out of a total revenue of 516,000 rds., in 1857 the customs revenue was £254,000 as compared with a total revenue of £407,000. As the need for revenue increased, the customs duties were raised. The tariff fluctuated almost inversely with the prosperity of the Colony, but in view of the demand for additional revenue, as the Colony advanced, the general tendency was upward.

In the Transvaal, O.F.S. and Natal the tariff was likewise enacted from the outset primarily with a view to yielding revenue, and

¹ This subject is treated in detail in the chapter on Tariff Legislation, pp. 300-320.

came to be the main source of revenue as in the Cape. Customs duties represented the principal form of indirect taxation in all parts of South Africa, and continued to hold a dominant position in the fiscal systems of South African territories until the establishment of the Union in 1910. Since 1910 the relative significance of customs revenue has tended to decline in view of the development of direct taxation, *e.g.* from 32.5 per cent. of the total revenue* in 1911-12 to 26.6 per cent. in 1922-23; but it still remains the principal item of revenue in the Union.

The following table shows the fiscal significance of customs duties in South Africa in the past as well as at the present time :—

Customs Revenue as compared with Total Revenue in the Cape, Transvaal, and the Union of South Africa.

Year.	Cape.		Transvaal.		Union.	
	Customs Revenue.	Total Revenue.†	Customs Revenue.	Total Revenue.†	Customs Revenue.	Total Revenue.*
	£	£	£	£	£	£
1806 ..	27,000	103,000	—	—	—	—
1825 ..	20,000	150,000	—	—	—	—
1857 ..	254,000	407,000	—	—	—	—
1888 ..	1,133,000	2,235,000	250,000	834,000	—	—
1904-5 ..	1,926,000	4,528,000	1,580,000	4,359,000	—	—
1911-12 ..	—	—	—	—	4,509,000	13,867,000
1922-23 ..	—	—	—	—	5,762,000	21,677,000

Export Duty on Diamonds.—In 1916 provision was made for the imposition of a duty on the value of rough and uncut diamonds exported from the Union. At first the rate of duty was a percentage of the value of the diamonds exported, ranging from one-half of one per cent. to five per cent., and was based upon the percentage ratio of profits to revenue, but in 1917 it was altered to a flat rate of 5 per cent. of the market value of the diamonds exported, being further increased to 10 per cent. in 1919. The revenue from the diamond export duty has ranged from £173,000 in 1916-17 to £1,319,000 in 1919-20 and £723,000 in 1923-4.

(2) *Excise Duties.*—(a) *Spirits.* *Cape Colony.*—In 1878 a duty of 1s. per gallon was imposed on all spirits produced in the Cape Colony. In 1884 an amendment was made to the effect that the duty on

* Excluding interest on railways and harbours loan capital and on loans to the Provinces, Land Bank, Settlers, irrigation boards, etc.

† Excluding railway revenue.

spirits distilled from materials other than the product of the vine was increased to 2s. per gallon, being further increased to 4s. in 1885. In 1886 the duty on spirits distilled from the product of the vine was repealed and not re-imposed until 1904, when a duty of 6s. per gallon was levied on such spirits, and the duty on other spirits was increased to 10s. per gallon. Finally, in 1909, spirits distilled from the produce of the vine were divided into two classes, viz., *wine brandy*, which is the distillate resulting from the distillation of pure wine made from grapes, and *spirits other than wine brandy*, the former being subject to a duty of 3s. per gallon and the latter 6s. per gallon.

Transvaal.—In 1894 an excise duty was imposed upon distilled liquors or liquids manufactured in the South African Republic from imported produce or substances, at the following rates: 6s. per gallon of distilled liquors (alcohol strength 11 per cent.—56 per cent.) and £1 per gallon of liquors in excess of 56 per cent. alcohol strength. In 1902 the distillation of spirits for sale was prohibited, but in 1906 it was enacted that spirits could be distilled in the Transvaal from the produce of the vine for sale on payment of an excise duty varying from 7s. 6d. to 9s. per gallon.

Orange Free State.—In 1897 and 1898 an excise duty of 3s. per gallon was imposed upon all liquors or spirits distilled within the Republic from grapes, grain, fruit, etc.; and in 1906 a duty of 9s. per proof gallon, with allowance for overproof or underproof strength, was levied on all kinds of spirits distilled within the O.R.C.

Natal.—In 1906 an excise duty of 9s. per proof gallon of spirits distilled in Natal, with allowance for overproof or underproof strength, was introduced in that Colony.

Union (1910-24).—In 1913 consolidating legislation was introduced and new duties were imposed upon spirits distilled in the Union in lieu of those in force in the several Provinces, as follows :—

Description.	1913.	1921.
Wine brandy (cognac type), per proof gallon	s. d. 5 0	£ s. d. 12 6
Spirits distilled from the produce of the vine other than wine brandy and other than dop brandy, per gallon	10 0	17 6
Dop brandy and spirits distilled from materials other than the produce of the vine, per gallon	15 0	1 2 6

In 1916, in view of the need for additional revenue, the excise duties on spirits were increased by 2s. 6d. per proof gallon, and in 1919 and 1921 two further additions of 2s. 6d. were made; so that

by 1921 the duty on wine brandy was 12s. 6d. per gallon, on grape brandy 17s. 6d. and on dop brandy £1 2s. 6d.

The excise duty on spirits has a regulative as well as a fiscal aspect, the rates being graduated with a view to encouraging the distillation of wine brandy and prohibiting the distillation of dop brandy or of spirits from materials other than the produce of the vine.

(b) *Beer. Cape Colony.*—In 1884 an excise duty was imposed upon beer brewed in the Cape Colony at the rate of 12s. per 36 gallons of worts of a specific gravity of 1,057 degrees, allowance being made for differences in gravity. This duty was abolished in 1887, but introduced again in 1904, the rates of the duty varying from 4s. 6d. to 9s. per 36 gallons of worts.

Natal, O.R.C. and Transvaal.—In 1903 a duty of 4d. was levied on every gallon of beer brewed in Natal; and in 1906 and 1907 a similar excise duty was introduced in the O.R.C. and the Transvaal respectively.

Union.—In 1913 the excise duty on beer was rendered uniform throughout the Union at the rate of 6s. per 36 gallons of worts of a specific gravity of less than 1,040 degrees, and 12s. in the case of a specific gravity of 1,057 degrees, with a proportionate decrease or increase for any difference in gravity. In 1915 the duty was increased to 9s. and 18s. respectively, in 1919 to 12s. and £1 4s., and in 1921 to 15s. and £1 10s.

(c) *Cigarettes and Tobacco.*—In 1909 an excise duty was imposed upon cigarettes retailed in the Cape Colony. This duty was repealed in 1911 by the Union Cigarette Excise and Surtax Act, which provided for an excise duty on all cigarettes manufactured in the Union, and a surtax on all cigarettes imported into the Union, at the rate of $\frac{1}{2}$ d. per one-half ounce net weight or fraction thereof. In 1922 this duty on cigarettes was increased to $\frac{3}{4}$ d. per one-half ounce.

In 1921 excise duties were also imposed upon tobacco manufactured in the Union for sale, in addition to the duty on cigarettes, at such high rates that a substantial reduction had to be made in the following year, as follows :—

	1921.		1922.	
	s.	d.	s.	d.
(i) Tobacco ready for smoking in a pipe, per lb. ..	1	0		4
(ii) Tobacco ready for use in the making of cigarettes, per lb.	1	0		6
(iii) Tobacco in the form of cigarettes, per lb. ..	1	0		6
(iv) Tobacco in the form of cigars, per lb. ..	2	6	1	0
(v) Tobacco in the form of roll tobacco, per lb. ..		6		3 $\frac{1}{2}$

(d) *Sugar*.—In 1915 an excise duty was levied on sugar manufactured or refined in the Union at the rate of 1s. per 100 lbs.

(e) *Matches*.—In 1914 a duty was imposed upon matches manufactured in the Union at the rate of 6d. per gross of boxes or packages of not more than 100 matches, 1s. per gross of boxes or packages containing more than 100 matches but not more than 200 matches, and an additional 6d. in the case of every additional 100 matches. These rates have been doubled in recent years.

(f) Excise duties are also levied on *playing cards* manufactured in the Union, on *acetic* and *pyroligneous acids*, *extracts* and *essences of vinegar* produced in the Union, and on *patent* or *proprietary medicines* sold or exposed for sale by retail. The duty on medicines, however, which was imposed in 1923, is about to be repealed (1924).

The following table shows the considerable increase in the revenue from excise duties since 1911-12 :—

Excise Revenue of the Union, 1911-12 to 1922-23.

Heading.	1911-12.	1919-20.	1922-23.
	£	£	£
Spirits	232,000	880,000	637,000
Beer	85,000	249,000	215,000
Cigarettes	143,000	323,000	751,000
Tobacco	—	—	
Sugar	—	163,000	143,000
Matches	—	31,000	30,000
Miscellaneous	—	2,000	7,000
Total	£460,000	£1,648,000	£1,783,000

(3) *Transfer Duty: Cape Colony*.—As far as 1686 a transfer duty had been imposed by the Company upon the purchase price of immovable property when sold and transferred to another. At the time of the British occupation this tax was of two kinds : (a) a duty of 4 per cent. of the purchase price of lands, houses and other buildings held in freehold or quitrent ; and (b) a duty of $2\frac{1}{2}$ per cent. of the purchase price of the “ opstal ” (*i.e.* houses and other buildings) on loan farms, the price usually including the value of the land to a large extent, although the land legally belonged to the Government.

In these two forms the transfer duty was continued under British rule, the duty on the transfer of the “ opstal ” disappearing as loan tenure passed out of existence. The duty of 4 per cent. of the purchase price or value of any immovable property sold or otherwise alienated and transferred remained in vogue in the Cape until the establishment of the Union.

Natal.—The transfer duty in force in the Cape Colony was applied to Natal in 1846. This duty of 4 per cent. on the transfer of landed and building property was enforced in Natal until 1890, when it was reduced to 2 per cent. In 1907 the duty was fixed at 3 per cent.

Transvaal.—In 1871 a stamp duty varying from £1 1s. to £2 2s. was levied on contracts of purchase or lease of landed property; and in 1896 a duty of 4 per cent. on the transfer of immovable property was introduced in the Transvaal. This duty was reduced to $1\frac{1}{4}$ per cent. in 1902.

Orange Free State.—Transfer dues were also levied in the O.F.S. as far back as 1852. In 1895 a transfer duty of 4 per cent. was imposed upon the purchase price of fixed property in the O.F.S., which was confirmed by an O.R.C. Ordinance of 1906.

Union.—In 1913 provision was made for the reduction of the duty of 4 per cent. in the Cape and O.F.S., and 3 per cent. in Natal, to a duty of 2 per cent. upon all persons purchasing or acquiring fixed property in the Union and payable by the person acquiring such property. The duty of $1\frac{1}{4}$ per cent. in the Transvaal remained in force until 1919 when it was increased to 2 per cent., thereby securing uniformity in rates in the four Provinces of the Union. The revenue from the transfer duty is assigned to the respective Provinces and varies from £500,000 to £900,000 per annum.

(4) *Stamp Duties*.—Stamp duties were introduced by the Company as early as 1714 and regulated from time to time. By the end of the Company's rule at the Cape stamp duties were payable on almost all documents and transactions in the Colony. The stamp duties were further developed under British administration and were a fairly important source of revenue in the Cape Colony in the early part of the 19th century. The imposition of such duties on legal or commercial documents and transactions, such as mortgage bonds, security bonds, transfer deeds, contracts, affidavits, licences, insurance policies, marketable securities, broker's notes, promissory notes, bank notes, bills of exchange, court proceedings, receipts, etc., was continued throughout in the Cape Colony and also resorted to as a source of revenue in the Transvaal, Natal and O.F.S.

In 1911 stamp duties and fees were rendered uniform in all four Provinces of the Union, and in 1921 a number of such duties were increased for the purpose of enhancing the revenue. Stamp duties and fees now yield an average revenue of about £800,000 or £900,000 per annum. The payment of such duties is to be denoted by means of adhesive revenue stamps of the required value affixed to the documents, or by means of impressed or embossed stamps.

(5) *Licence Taxes*.—Under the Company a number of monopoly leases or licences were annually granted to certain individuals for carrying on a retail trade in Cape wines and brandy in Cape Town, Rondebosch, False Bay and Stellenbosch, or selling all kinds of liquor to foreign ships, or selling foreign wines and beer in the Colony, or brewing beer in the Colony, or working the salt pans, or baking, butchering, etc.. In this way the Company derived a fairly substantial revenue.

When the Cape was taken over by the British in 1795, these monopolies were abolished and individual licences were issued to wholesale or retail dealers in wine, spirits and beer, butchers, bakers, etc. Public drink-houses were licensed at the rate of 1,500 rds. per annum, the number being limited to 32. However, the sum realised by the Government from these licensed drinking-houses proved to be small in comparison with the revenue to be derived from the “pagt” or monopoly licence system. Accordingly it was decided to re-introduce the “pagt” system of selling every year the monopoly of the retail trade in wine in certain areas to the highest bidder, leaving it to the “pagter” to grant licences to individuals in his district. The “pagt” was finally abolished in Cape Town in 1823, and licences were issued for the sale of wine, spirits and beer by wholesale or retail. In 1829, for example, a wholesale liquor licence was fixed at £20 per annum, a retail liquor licence in Cape Town and the Cape District at £112 10s., and in other parts of the Colony from £25 to £75.

Liquor licences were further developed in the Cape Colony and also adopted as a source of revenue in Natal as early as 1847, when wholesale and retail licences for the sale of wine, spirituous and malt liquors were issued at the rate of £20 per annum, followed by the O.F.S. and the Transvaal. In due course trading and professional licences were also introduced and exploited for revenue purposes in all parts of South Africa. General dealers' licences were issued in the Cape in 1863 at the rate of £3 per annum and subsequently increased from time to time as well as graduated according to certain indices. In the O.F.S. general dealers' licences were graduated in accordance with the average value of the “turn-over of stock or goods” in 1898 already. With the exception of Natal, this is the prevailing method of taxing general dealers in the Provinces of the Union.

Licence taxes of various kinds are levied in accordance with the laws in operation in the several Provinces. Under the Financial Relations Act of 1913 certain trading and vocational licences were reserved to the Union, but all other licences in respect of the exercise of any trade, business, vocation or profession were trans-

ferred to the Provinces, together with licences for dogs outside urban areas, licences to catch or kill game, fish or other animals, and motor-car or other vehicle licences.² The revenue from liquor licences was assigned to the Provinces, but the right to legislate in respect thereof was retained by the Union Parliament.

Revenue from Licence Taxes in the Union (1913-14 to 1921-22).

Head of Revenue.	1913-14.	1917-18.	1921-22.
	£	£	£
A.—Union Licences	130,000	109,000	136,000
B.—Provincial Licences :			
(a) General Dealers' Licences ..	—	101,000	384,000
(b) Liquor Licences	129,000	131,000	132,000
(c) Importers' Licences	—	25,000	93,000
(d) Dog, Fish and Game Licences..	46,000	64,000	80,000
(e) Motor Car Licences	17,000	30,000	48,000
(f) All Other Licences	211,000 ³	75,000	173,000
Total	£533,000	535,000	1,046,000

(6) *Auction Dues.*—Auction dues were first introduced in the Cape by the Commissioners-General in 1793 and levied on goods sold at public auction, at the rate of $3\frac{1}{2}$ per cent. on movables and $1\frac{3}{4}$ per cent. on immovables. These auction or vendue duties were abolished under the British Government in 1798, but were re-imposed under the Batavian Republic and continued under the second British occupation at the rate of 5 per cent. on the sale of all movable property (including slaves) and $2\frac{1}{2}$ per cent. of the value of all immovable property sold at public auction. The revenue from such duties advanced from £2,000 in 1794 to £12,000 in 1820 and £24,000 in 1857.

The system of auction dues was established at the Cape in connection with the public auction sales conducted by the Commissary of Vendues, a civil officer of the Government, in view of the precarious state of credit in the Colony at that time. The Commissary of Vendues held, on behalf of the Government, a monopoly of auction sales, employing a number of auctioneers and clerks in connection with the daily sales of landed property, merchandise, slaves, etc., and undertaking to guarantee payment to the seller, three months after sale, being himself protected from loss by a

² These additional licences, being borne by those who pay them in the first instance, are direct taxes, but are included with the other licence taxes under the heading of indirect taxation for the sake of convenience and clearness.

³ Including general dealers' and importers' licences.

preferable claim on the assets of a defaulting debtor. At first these public sales of merchandise on credit were of greater extent and importance than private sales, but with the development of commercial banks and the general increase of wealth and security such public sales declined in importance relatively to private sales on cash or credit until they were abolished. Accordingly auction dues ceased to be a source of revenue in the Cape Colony.

In the O.F.S., however, auction dues were introduced at the rate of one-fifth of one per cent. of the value of all goods sold by public auction. In 1897 a "vendue tax" of 1 per cent. was also imposed upon the purchase price of fixed property and claims situated in the O.F.S. but sold by public auction outside the O.F.S. Auction dues have continued to remain in force in the O.F.S. and are now levied for the benefit of that Province, under the Financial Relations Act of 1913. At present the auction dues consist of a duty of 1 per cent. on the amount of each sale of immovable property and 2 per cent. on each sale of movable property.

In 1921 auction dues were also introduced as a source of Provincial revenue in Natal, and in 1923 in the Transvaal. In the latter Province a duty of 1 per cent. is levied on the amount of each sale of fixed property or agricultural and pastoral produce, and $2\frac{1}{2}$ per cent. on the amount of each sale of all other produce.

DIRECT TAXATION.

(1) *Property Taxes.* (a) *Land Tax.*—In the *Cape* and *Natal* no land tax, in the sense of a tax on the extent or the value of land only, has been imposed either by the Central or Local Governments, but there are examples of land revenue being derived from rent charges and of taxes having been imposed upon farm produce and live stock in lieu of the ordinary land tax. Under the Company land was given out in the *Cape* either on freehold tenure, subject in some cases to the payment of tithes, or on loan and quitrent tenure, subject to the payment of rents and tithes. The tithe was originally intended to be a tax of one-tenth of the wheat, barley and rye harvested on farms every year, but, in view of the great difficulty experienced in checking evasion and enforcing the payment of the tithe, the final outcome was that it was imposed merely on the grain brought into Cape Town for sale. It was also attempted to levy a tithe on wine and brandy, as in the case of grain, but on account of the difficulties involved therein the so-called inland duty of three rds. per leaguer was introduced in respect of all wine and brandy brought into Cape Town. The tithe on wheat, barley, rye, peas and beans and the inland duty on wine and brandy were retained by the British authorities at the Cape.

The tithe, which had to be delivered in kind at the Company's store or granary, was converted into a money payment and fixed in 1800 according to the market prices of the time, e.g. three rds. per load of wheat (10 muids), five rds. per load of peas, etc.; and the duty on brandy was raised from three to five rds. per leaguer. These taxes remained fixed charges in spite of the depreciation of the rixdollar and the rise in prices.

Moreover, under the Company a tax on sheep and black cattle had been levied and collected for local purposes by the landdrosts and heemraden in the three country districts of Stellenbosch, Swellendam and Graaff-Reinet. This tax was also levied under British administration and extended to all kinds of farm produce as well. Taxes, known as "Opgaaf" taxes and based upon annual returns furnished by the farmers, were assessed and calculated upon a valuation of live stock in the possession of a farmer and the total annual yield of produce of all kinds. For example, each head of black cattle or each breeding horse or each muid of wheat, barley, etc., was subject to a tax of $\frac{3}{4}$ d.; each leaguer of wine 6d. and each leaguer of brandy 1s. $1\frac{1}{2}$ d., etc.

In their report of 1826 the Commissioners of Inquiry recommended the abolition of the tithes and "opgaaf" taxes and the raising of the rent charges on Crown land given out on quitrent tenure. Several years, however, elapsed before the tithes and "opgaaf" or assessed taxes were abolished in the Cape Colony. In 1832 the former still yielded £4,373, and the latter taxes on produce and stock £3,162. After 1831 Crown land was to be sold by public auction, subject to the payment of an annual quitrent. Quitrents and the proceeds from the sale of Crown lands, known generally as "land revenue," constituted for many years a relatively important source of revenue in the Cape Colony as well as in Natal.

Transvaal and Orange Free State.—In the Transvaal and the Orange Free State a land tax was introduced at an early stage of their development and levied on all occupied land within those territories. In the O.F.S. quitrents were imposed upon Crown lands allotted to settlers under various legislative enactments until 1876, when a uniform quitrent, which was of the nature of a tax, of 2s. per 100 morgen or portion thereof was imposed upon all farms within the Republic, an additional amount of £5 per annum being payable on each farm belonging to persons resident outside the Republic and not occupied. In the Transvaal a land tax, which was likewise based on the extent and not the value of the land, was levied at higher rates on land held on quitrent tenure than on land held in freehold. In the case of surveyed quitrent

farms the rate was 1s. 6d. per 100 morgen or portion thereof, and in respect of unsurveyed farms 30s. for a whole farm or portion more than half, and 15s. for a half portion or less ; and in the case of freehold farms the rate was 10s. for a whole farm not exceeding 3,750 morgen, with an additional 2s. 6d. per 100 morgen for any extent in excess of 3,750 morgen, and 5s. for a half farm not exceeding 1,875 morgen or for any portion less than half.

This land tax, which still prevails in the O.F.S., the Transvaal and the three old Transvaal districts which were annexed to Natal after the Boer War, is partly a tax in that it was imposed upon all farms for the purpose of defraying the general expenditure of the State, whether such farms were occupied prior to the imposition of the tax or after, or whether they were acquired by purchase or grant ; and it is partly a rent charge, in that it was levied as " recognition money " payable to the State in recognition of its original ownership of the soil. It is very similar to the English Land Tax of 1692 which was converted by Pitt into a redeemable rent charge in 1798 ; and it seems to be advisable for the Union Government to likewise convert the abovementioned land tax into a redeemable rent charge, especially in view of the fact that the tax yields only £40,000 per annum and that the trouble and expense of collecting it are out of all proportion to the amount collected.

Tax on Site Value of Land.—In a few cities and towns in the Union the principle has been adopted of levying rates for local purposes on the site value of land only, irrespective of the value of buildings or other improvements, e.g. Johannesburg and Germiston, or of levying higher rates on the site value of land than on the value of improvements, e.g. Pretoria, East London and Klerksdorp. In 1922 the site value of land in Johannesburg and Germiston was assessed at £14,758,000 and £2,800,000 respectively, and the rates were fixed at 10d. and 7d. in the £ respectively. In Pretoria the local rates amounted to a tax of 6½d. in the £ on the site value of land and 3d. on the value of improvements, while in East London the rates were 7½d. and 2½d. respectively, and in Klerksdorp 5½d. and 2½d.

This method of taxation of landed property is a local reflection of a tendency which has gained considerable headway in practice as well as in theory in several other countries

Tax on Increment in Land Values.—In 1919, in accordance with the movement in Germany, U.S.A. and certain other countries, the Transvaal Provincial Council authorised the imposition of an " increment value duty " of from 5 to 25 per cent. on profits realised on the sale, cession, exchange, donation, or any other disposal of

fixed property. This tax, however, was repealed in the following year.

(b) *Immovable Property Tax*.—The immovable property tax, which is levied on the assessed value of land, buildings and other immovable property as a combined unit, is the principal local tax in South Africa. With the above-mentioned exceptions, it represents the usual method of taxing property for the purposes of local bodies, such as municipalities, village management boards and divisional councils in the Cape, town councils and village councils in the Transvaal, municipalities and village management boards in the O.F.S., and municipalities and local boards in Natal.

At first local taxation in the Cape was based on a variety of taxes on persons, live stock, produce, carriages, etc., and tolls on roads and bridges, but owing to the gross iniquities involved in the administration of such taxes they were ultimately abolished, and in common with the established practice of all the leading countries the property tax has become the basis of local taxation throughout South Africa. From time to time legislation was introduced in all four territories, authorising local bodies to levy rates on landed property and prescribing the maximum limit of such rates. For example, in 1882 the Cape Parliament passed a law authorising local governments to levy either (a) a landlords' or owners' rate, not exceeding 2d. in the £, assessed upon the value of all immovable property, or (b) a tenants' rate, not exceeding 8d. in the £, assessed upon the annual value of the property, or both. Provision was also made for the levy of a special rate⁴ in cases of a special benefit to a particular portion of the municipality, but in general municipal councils did not take advantage of this latitude. In 1890 the tenants' rate was repealed, and henceforth the owners' rate only was allowed; in 1893 a rate of 4d. in the £ on the valuation of immovable property was authorised, etc.

In the principal towns of the Union, i.e. with a population of more than 20,000, the local rates on immovable property vary from 4d. to 6d. in the £. In Cape Town, where the rateable value of property amounted to about £24,000,000 in 1922, the rate was 5½d. in the £; in Durban, with a rateable value of about £16,000,000, 5d. in the £; in Kimberley and Port Elizabeth 6d; in Bloemfontein 4¾d. and in Pietermaritzburg 4½d. In the towns with a population of less than 10,000, however, the rate is almost without exception less than 2d. in the £. For example, in Stellenbosch it was 2d., in Paarl 1¾d., Jagersfontein 1½d., Parys 1d., etc.

⁴ This is known in the United States as a "special assessment" and in Great Britain a "betterment tax."

In 1918 the Cape Provincial Council also imposed a tax on all immovable property at the rate of three-eighths of a penny for every £1 of the amount of the taxable value of the property. The tax is levied upon the valuation of the property as shown in the Provincial Valuation Roll, which is again based on the valuations of the various municipal and divisional councils in the Province.

(c) *House Tax*.—Under the Company a house tax was introduced in Cape Town for local purposes. It was known as *Hearth Money* and was also called *Watch Tax*, as it was originated for the purpose of defraying the expense of guarding the town. Originally this tax of four rds. per annum was paid only for dwelling-houses, but was subsequently also applied to stores or packhouses. It was continued for a number of years under British rule, being increased to 7½ rds. in 1821, and ultimately abolished.

A house tax was also introduced in the Transvaal by the Provincial Council in 1917. As amended in 1918 it was a tax on the occupiers of dwelling-houses within the Province, provision being made for certain exemptions, at the rate of 5s. for each room irrespective of the number. This tax, however, was repealed in 1920.

(d) *Tax on Capital Stock*. (i) *Registration Duty*.—Under the Stamp Duties and Fees Act of 1911 provision was made for a “Companies’ Capital Duty” in the form of a registration duty. A statement of the amount which is to form the nominal share capital of any company to be registered under any law relating to the registration of companies, and a statement of the amount of any increase of share capital of any company, is to be delivered to the receiver of revenue before the registration, and upon every such statement there is to be paid duty of 5s. for every £100 of the amount of such capital, or increase of capital, as the case may be.

(ii) *Tax on Market Value of Share or Debenture Capital*.—In 1920 the Cape Provincial Council introduced a tax on companies registered or carrying on business in the Province, at the rate of 1s. for every £100 of market value of paid-up share or debenture capital. In cases, however, where the market value is not ascertainable, the nominal value of the paid-up capital is to be the basis of assessments.

(2) *Income Taxes*. (a) *Personal or General Income Taxes prior to 1917*.—In 1814 an income tax was introduced in Cape Town in lieu of certain taxes formerly levied for the purpose of repairing streets, roads, canals, ditches, etc., in the town and the area under its jurisdiction. The inhabitants of Cape Town were to be taxed according to their income “either arising from office, profession, trade, commerce, slave hire, and other sources of a life interest

or other temporary nature, or from houses, mortgages, etc., of a permanent and transmissible nature." Incomes were classified and grouped into 16 classes, the mean being taken for each class and the tax being fixed at $\frac{3}{4}$ per cent. on such mean. For example, in the 16th class the income ranged from 100 to 300 rds. per annum, the amount of the tax being $1\frac{1}{2}$ rds.; the 10th class covered the incomes between 2,000 and 3,000 rds., the amount of the tax being 19 rds.; and in the 1st class were included all incomes between 20,000 and 30,000 rds., with $187\frac{1}{2}$ rds. as the amount of the tax. The income tax was also imposed on the inhabitants of the country districts of Stellenbosch, Swellendam, etc., in respect of their income from sources other than farming, which was already taxed under the "opgaaf" taxes on produce and live stock. By 1832 the income tax in the Cape Colony had been increased to 2 per cent. on all whose incomes exceeded £30, excepting income from farming, and was yielding over £2,500 per annum. This tax was subsequently abolished along with other taxes.

In 1904 an income tax was again introduced in the Cape Colony and levied by the Central Government on all persons whose income exceeded £1,000 per annum. The rates of the tax were 6d. in the £ on incomes between £1,000 and £2,000, 9d. in the £ on incomes between £2,000 and £5,000, and 1s. in the £ on incomes over £5,000. On the establishment of the Union, however, the Cape income tax was abolished, such being the only example of the taxation of income in South Africa; but by 1914 the need for additional revenue had rendered it necessary for the Union Government to introduce an income tax into its fiscal system.

The initial Union income tax was of limited application, as provision was made for an abatement of £1,000 and various exemptions. Taxable income was interpreted as income in excess of £1,000 which was received by any person wheresoever residing from any source in the Union. The rate of the tax was 6d. in the £, rising by $\frac{1}{2000}$ th part of a penny for each £1 of the taxable amount up to 1s. 6d. in the £ on £24,000, this rate applying also to all taxable amounts in excess of £24,000. As the result of fiscal necessity created by the abnormal war conditions, the scope of the income tax was annually extended. In 1915 the primary abatement was reduced to £300, while secondary abatements were provided for in respect of children under the age of 16 years and insurance premiums. Moreover, the rate was increased to 1s. in the £, rising to 2s. in the £ on a taxable income of £24,000 or over. In 1916 a super-tax was also imposed on incomes exceeding £2,500 per annum, applicable to individuals only and being in addition to the normal income tax.

This income tax did not apply to the profits of mining, since special legislation was in force pertaining to the taxation of such profits. It was only in 1917 that the profits of mining were also brought under the income tax.

(b) *Taxes on the Profits of Mining prior to 1917.*—In the Transvaal, under regulations issued in February and March, 1899, provision was made for a tax of 5 per cent. on the net profits of gold mines, and $2\frac{1}{2}$ per cent. on the gross yield of gold from "mynpacht" areas; and in 1902 the Crown Colony Government imposed a tax of 10 per cent. on the net profits earned by gold mines as being more or less the equivalent of the charges directly or indirectly⁵ levied by the Republican Government prior to the Boer War. In the Orange Free State, on the other hand, a tax of 7 per cent. on the net profits of diamond mines was introduced in 1907.

On the establishment of the Union legislation was passed consolidating the various mining tax laws in force, known as the Mining Taxation Act of 1910, which imposed a uniform profits tax of 10 per cent. on the profits of mining for gold or diamonds, and a graduated tax on the profits of mining for all other minerals ranging from $2\frac{1}{2}$ per cent. upwards. "Profits" was interpreted as including all revenue derived from the mining or disposal of gold, diamonds or other minerals, after deducting therefrom the amount of the working expenditure and an allowance for amortisation of capital expenditure. The gold mines yielded on an average about £1,000,000 per annum, while the revenue from the profits tax on diamond mines varied from £475,000 in 1911-12 to £16,000 in 1915-16, owing to the closing of the diamond mines from September, 1914, until January, 1916; and the other mines produced an annual revenue of about £33,000.

In 1915 a special war levy of £500,000 on the profits of gold mining during the financial year 1915-16 was authorised by Parliament, and in 1916 provision was made for a further special war levy of £500,000, in addition to the ordinary mining tax. Thus, the gold mines were rendered subject to a special war contribution of £1,000,000, which was payable in four instalments over a period of three years, 1915-18.

(c) *Consolidated Income Tax of 1917.*—In 1917 the Income Tax (Consolidation) Act was passed, which repealed the previous Acts pertaining to the taxation of income as well as the mining taxation Acts. Henceforth, the mines were to be liable to the income tax. In terms of this legislation four taxes were imposed: (i) normal tax, (ii) supertax, (iii) dividend tax, and (iv) excess profits tax.

⁵ Such as high customs duties on mining machinery and other mining requisites, the dynamite monopoly, high railway rates, etc.

Some amendments were made in 1921 as a result of which the income tax is now constituted as follows :—

(i) *Normal Tax*.—Taxable income is an income in excess of £300 after deducting losses and expenses ⁶ actually incurred in the Union by the taxpayer in the production of his taxable income, provided they are not of a capital nature. Besides the primary abatement of £300 provision is made for a number of secondary abatements, such as £50 for each child under the age of 18 years, £30 for each dependent, any sum not exceeding £50 as life or accident or sickness insurance premium, and any fees or subscriptions not exceeding £10 to any friendly or benefit society. The total of these abatements or allowances, however, is subject to reduction in the following manner :—

- (a) In the case of unmarried persons the reduction is to be £1 for every £1 by which the taxable income exceeds £300 ; and
- (b) in the case of married persons £1 for every £10 by which the taxable income exceeds £600.

The rates of the normal tax on incomes in the Union are the following :—

- (a) In the case of companies, 1s. 6d. for each £1 of the taxable amount ;
- (b) in the case of individuals, 1s. in the £ and as many two-thousandths ($1/2000$) of a penny as there are pounds in that amount until the rate is 2s. in the £ on a taxable amount of £24,000, this rate applying also to all taxable amounts in excess of £24,000.

In the case of individuals, provision is made for the exemption of dividends received from any company in respect of which the dividend tax has been paid, or of interest on debentures received from any company in respect of which normal tax has been paid by such company.

(ii) *Supertax*.—The supertax is a tax on individuals as distinct from companies. Supertaxable income is taken to be an income exceeding in the aggregate £2,500 per annum, including dividends and debenture interest. Allowance is made for an abatement of £2,500, diminishing by £1 for every £1 by which the income subject to supertax exceeds £2,500.

The rate of the supertax is 1s. for each £ of the taxable amount and as many five-hundredths ($1/500$) of a penny as there are pounds in that amount until the rate is 5s. in the £ on an amount of £24,000 or over.

⁶ Including repairs and depreciation.

(iii) *Dividend Tax*.—All dividends distributed by companies are liable to the dividend tax subject to specified exemptions and abatements. The rate of the dividend tax is 1s. 6d. in the £ on the dividends distributed by gold or diamond-mining companies, and 1s. in the £ on the dividends of all other companies.

Thus, in the Union income tax the principle of taxation at the source is applied merely to dividends through the dividend tax, and indirectly also to debenture interest through the normal tax on the income of companies, *i.e.* those elements of income which are most easily and conveniently stopped at the source. The dividend tax is designed to secure not only stoppage at the source but also differentiation in the taxation of companies, the gold and diamond-mining companies being subject to a higher rate than other companies. The principle of progressive rates is applied to individuals both in respect of the normal tax and the supertax, companies being exempt from the supertax and subject to a flat rate under the normal tax; and there is a fixed limit to progression in either case, progression ceasing at £24,000 in the normal tax on individuals as well as in the supertax.

The income tax has come to be one of the most productive sources of revenue in the Union, being second only to customs duties.

Value of Assessments of Income Tax in the Union.

Heading.	1914-15.	1917-18.	1920-21.	1922-23.*
	£	£	£	£
Income Tax :				
Normal Tax	499,000	2,429,000	3,737,000	2,630,000
Super Tax	—	569,000	1,014,000	746,000
Dividend Tax	—	867,000	1,386,000	521,000
Total ..	£499,000	3,865,000	6,137,000	3,897,000

(d) *Excess Profits Tax*.—The excess profits tax was instituted in 1917 as a temporary measure and levied for a number of years (1917-21) on all companies and individuals, carrying on any trade or business, whose profits for the years subject to that form of taxation exceeded by more than £500 their profits for the year ended June 30, 1914. Thus the excess profits tax, as levied in South Africa, was virtually a war profits tax, although it contained the elements of an excess profits tax proper (*i.e.* profits in excess of a certain percentage) in the case of concerns established since the outbreak of the War. It was based mainly on the British excess

*The low income tax assessments for 1922-23 are to be attributed to the effects of the depression and the strike of 1922.

profits tax. The rate was fixed at 5s. in the £ in 1917, but was increased to 10s. in the £ in 1919.

The revenue from the Union excess profits tax amounted to £270,000 in 1917-18 and £1,216,000 in 1919-20, rising still further to £1,824,000 in 1921-22.

In 1917 the Transvaal Provincial Council imposed a tax on excess profits within that Province equivalent to one-fifth of the excess profits duty as assessed by the Union Government. This tax, however, was not re-imposed in the Transvaal in the following years, as it was much resented on the ground that a similar tax was at the same time being levied by the Union Government.

(e) *Various Provincial Taxes on Income.* (i) *Transvaal Gold Profits Tax.*—In 1918 the Transvaal Provincial Council introduced a tax of from 1 to 4 per cent. upon the profits derived from the production of gold within that Province. In 1921, however, legislation was passed by the Union Parliament which deprived a provincial council of the power to make an ordinance which imposed direct taxation in respect of the product of, or the income or profits derived from, any mining operations. Accordingly the tax ceased to be in operation after March 31, 1922. In 1921-22 it had yielded a revenue of £267,000.

(ii) *Cape Crayfish Canning Profits Tax.*—In 1920 provision was made in the Cape Province for a tax on companies carrying on the business of canning crayfish within that Province, at the rate of 3 per cent. on the gross receipts of any such company after deduction of 20 per cent. to cover freight, insurance, etc. In 1921 this was changed into a tax of 10 per cent. of the profits.

(iii) *O.F.S. Education Tax.*—In 1921 the Provincial Council of the Orange Free State introduced, for the purposes of education, a tax of from $\frac{3}{4}$ to 5 per cent. of the taxable income of male adults, unmarried females, companies, associations and societies.

(iv) *Transvaal Companies Tax.*—In 1923 the Transvaal Provincial Council imposed a tax of 1s. for each £1 of dividend distributed by financial companies, 3d. for each £1 of life premiums and 2d. for each £1 of all other classes of insurance premiums received by insurance companies, and 6d. for each £1 of the taxable income of all other companies.

(3) *Estate and Succession Duties.*—In the Cape Colony and the Orange Free State a succession duty was introduced in 1864 and levied on the value of successions accruing to heirs of a deceased person from his estate. In the Cape the rate was 1 per cent. in the case of lineal descendants or ancestors of the deceased, 2 per cent. for brothers or sisters of the deceased, 3 per cent. for de-

scendants of brothers or sisters, and 5 per cent. in the case of other degrees of relationship or strangers in blood, while in the O.F.S. the rate was 1 per cent. for heirs in the ascending or descending line, as well as husband or wife, 2 per cent. for heirs in the collateral line, and 5 per cent. for strangers in blood. The rates introduced in the O.F.S. are still in force in respect of the estates of persons who died prior to July 1, 1922, but in the Cape the rates were increased in 1908 to 3, 6, 9 and 15 per cent. respectively. In Natal a succession duty was also imposed on the basis of the classification adopted in the Cape, the rates being fixed in 1905 at 1, 2, 3 and 5 per cent. respectively.

In the Transvaal, on the other hand, an estate duty was introduced in 1871 and amended in 1899, in accordance with which a duty of 1 per cent. was levied on the gross value of deceased estates. In 1909, however, the estate duty was rendered chargeable on the net value of deceased estates, and provision was made for the exemption of all estates whose net value did not exceed £2,000 and for a sliding scale of rates, ranging from 1 per cent. in cases where the net value of the estate exceeded £2,000 but did not exceed £3,000, to 10 per cent. on the net value of estates exceeding £250,000.

In 1922 the Death Duties Act was passed by the Union Parliament, consolidating the various laws relating to estate and succession duties in the four Provinces of the Union and bringing about uniformity in the taxation of the estates of persons who died on or after July 1, 1922. There was great need of consolidation and uniformity in view of the fact that the various laws in force overlapped and produced certain anomalies, and that there were differences in the duties and rates.

The new death duties comprise an estate duty and a succession duty, the former being levied on the net value of the estate and the latter on the successions accruing to the various heirs from that estate. In connection with the estate duty an abatement of £1,000 is allowed, subject to reduction by £1 for every £1 by which the net value of the estate exceeds £1,000, i.e. no estate duty is leviable on an estate the net value of which does not exceed £1,000. The rates of the estate duty range from $\frac{1}{2}$ per cent. upon the first £2,000 of the dutiable amount to 3 per cent. between £5,000 and £10,000, 10 per cent. between £75,000 and £100,000, and 17 per cent. upon so much of the dutiable amount as exceeds £1,000,000.

The rates of the succession duty vary according to the degree of relationship, being 2 per cent. in the case of lineal descendants or ancestors of the deceased, 4 per cent. for brothers or sisters, 6 per cent. for descendants of brothers or sisters, and 10 per cent.

for those otherwise related to the deceased or strangers in blood or institutions.

Hitherto the estate and succession duties have not by any means been an important source of revenue in the Union as in Great Britain, France and Germany, yielding merely from £200,000 to £300,000 per annum, but it is hoped that the new system will prove to be more productive of revenue and a worthy adjunct to the income tax. From the fiscal as well as the legal point of view the new system of death duties is a great improvement on the old one, but in general the science of finance approves of the graduated inheritance tax, i.e. graduated not only according to relationship but also the amount of the succession or inheritance, rather than of the combined estate and succession duties.

(4) *Poll or Capitation Taxes.*⁷—Under the Company, and under British rule until 1814, a poll or capitation tax⁸ was levied for local purposes in Cape Town and the country districts at the discretion of the local authorities, i.e. the burgher council or the landdrosts and heemraden. In Cape Town and the Cape District it was known as Lion and Tiger Money, as it was originally levied for the purpose of obtaining revenue in order to pay premiums for the killing of lions, tigers and other wild beasts; and as such it was the oldest tax of the Colony. In the Districts of Stellenbosch, Swellendam, etc., it was known as Head Money, i.e. the money which each head of the population was to contribute toward the expenses of the local government.

In 1814, when the entire system of local taxation at the Cape was reformed, the capitation tax in Cape Town was abolished and an income tax introduced in its place, while in the country districts it was re-imposed in a new form. For purposes of ordinary local taxation the rate of the capitation tax was fixed by law at $2\frac{1}{2}$ rds. per annum for every free male inhabitant above the age of 16 years and every free female above 20 years, while for the extraordinary assessments a proportionate augmentation of the rate was to be made. In 1823 authority was also obtained by proclamation of the Governor to levy a tax on slaves in the country districts at the rate of 2 rds. per annum for each male slave above 14 years, 1 rd. for each female slave above 14 years, and 4 skillings for each slave under 14 years; and in accordance with the recommendations of the Commissioners of Inquiry (1826) a tax on free male servants was introduced at the rate of 10s. per head per annum, while the former capitation tax of $2\frac{1}{2}$ rds. was altered to 6s. per annum. Moreover, every free male servant, or slave above 16

⁷ Excluding poll taxes on natives.

⁸ Part 1, pages 83-84.

years, employed as a coachman or driver of a carriage, was taxed at £4 10s. and £2 per annum respectively.

All these local taxes on persons in the Cape Colony were subsequently abolished, and no poll tax has been imposed in the Cape since that time by the Central or Local Governments.

In the O.F.S. a poll tax of 6s. per annum was introduced in 1861 and levied on all citizens between 18 and 60 years of age and possessing no fixed property. In 1862 this tax was repealed and a new tax of £1 imposed on all citizens between 16 and 80 years, for the purpose of maintaining a police force. This tax, however, was likewise repealed in 1863. In 1885 a poll tax of £1 per annum was again introduced in the O.F.S., for a period of three years for the purpose of redeeming public debt, on every European male inhabitant of the Republic between 18 and 70 years and possessing no fixed property or drawing no fixed salary.⁹

In the Transvaal a tax of 2s. 6d. per head was levied in 1875 on every male over 16 years as a road rate, but was abolished after a number of years.

In recent years recourse has again been taken to the imposition of poll taxes on Europeans in South Africa. In 1917 the Transvaal Provincial Council imposed a tax of £1 per annum on every adult bachelor (other than a native) over the age of 21 years and ordinarily resident in that Province; and in 1918 an amendment was made in respect of bachelors over 25 years of age, who were rendered liable to a tax of £2. This bachelor tax was repealed in 1920 and followed in 1921 by a graduated poll tax, the rate of which is £1 10s. on all married adults, and in addition 15 per cent. of the income tax payable in the previous year, and in the case of unmarried persons, 50 per cent. more. On unmarried persons under 25 years and not liable to the income tax the rate is £1 10s. per annum. In 1921-22 the Transvaal poll tax yielded a revenue of £490,000, the principal item of revenue in that Province.

In the beginning of 1924 a proposal was also made for the imposition of a poll tax in the Cape Province, but it has met with strong opposition in the Provincial Council.

(5) NATIVE TAXES.

(a) *Hut and Poll Taxes.*—In the Transvaal and the O.F.S. a poll tax has been imposed on natives, whereas in the Cape and Natal a hut tax has been adopted in respect of the taxation of natives.

⁹ Those drawing a fixed salary were subject to a tax of 1 per cent. of such salary, while the owners of farms were to pay a tax of 2s. per 100 morgen and the owners of property in the towns and villages 1d. in the £ on the value of such property.

In 1869 a tax of 10s. was imposed on each hut situated on Crown lands within native locations in the Cape Colony. This hut tax of 10s. is still levied in all Crown locations (with the exception of surveyed locations, where quitrents have been introduced), including the Bechuanaland Reserves and unsurveyed locations on Crown land in the Transkeian Territories. In Natal a tax of 14s. per hut has also been imposed on all natives living in huts within the Province.

In the Transvaal a tax of 10s. on every hut occupied by natives was introduced in 1880, and in 1884 natives were rendered liable to road rates in the form of a tax of 2s. 6d. per head. Moreover, in 1895 a poll tax of £2 was imposed on every male native over 21 years, in addition to the hut tax of 10s. and the road rates, but in 1902 the hut tax and the road rates on natives were abolished and natives were subject merely to a poll tax of £2 per annum, provision being made in 1908 for a remission of £1 in respect of native farm labourers and natives in municipal locations.

In the O.F.S. all native locations were rendered subject in 1865 to an annual tax of 10s. on each hut, except in the case of natives who were in the service of farmers under contract; and in 1870 it was ordained that the tax was applicable to each head of a family, and not each hut. Then a poll tax of 1s. was imposed on every coloured male on public diggings and 10s. on every coloured male, between 18 and 70 years, outside the public diggings. Finally, in 1904 a poll tax of £1 per annum was levied on all adult coloured males in the O.R.C. (O.F.S.).

The hut and poll taxes on the natives yield on an average about £800,000 per annum, of which the Transvaal poll tax is responsible for about £400,000.

(b) *Native Pass Fees*.—As early as 1872 provision was made for the issue of passes to natives in the Transvaal. In 1880 it was enacted that all foreign natives, on entering the Transvaal, were to apply for a pass and pay a fee of 1s.; and in 1895 a pass and a fee of 1s. were required from all natives going beyond the borders of the district in which they reside. Finally, in 1903 a fee of 2s. per head per month, payable by the employer, was imposed on all male natives over the age of 14 employed in the proclaimed labour districts of the Transvaal, a fee of 1s. being payable by natives outside the labour districts.

Pass laws based on various statutes are also in operation in the other parts of the Union with the exception of the Cape Province proper, *i.e.* excluding the Transkeian territories.

In accordance with the provisions of the Financial Relations Act of 1913, the pass fees payable by the employers of natives in the

labour districts of the Transvaal were assigned to that Province, the revenue being on an average about £390,000 per annum. The other native pass fees, yielding only about £48,000 per annum, were retained and collected by the Union Government for its own purposes.

Miscellaneous Provincial Taxes.—In recent years a number of miscellaneous taxes have been levied in the Provinces, such as taxes on racing and betting, entertainments, wheels and vehicles, etc., but these are of comparatively little fiscal significance.

Conclusion.—As a result of comparatively rapid economic and constitutional development, after 1870, in the territories now comprising the Union and a great deal of patchwork and unsystematic augmentation of taxes since the establishment of the Union, in the attempt to cover the rapidly increasing public expenditures, the system of taxation in the Union has been productive of several iniquities and anomalies and needs to be thoroughly revised and consolidated. The system of Union, Provincial and Local taxation is to be considered as a whole with a view to securing, as far as possible, a just and scientific distribution of the public charges amongst the various governments as well as the taxpayers. Greater consideration should be given to the maxim that taxes ought to be levied in the manner that is most conducive to the public welfare, in accordance with which the fiscal policy of governments is to be framed on a systematic basis, after taking into consideration the extent of public activities and expenditures, and in compliance with the following principles of taxation :—

- (1) *fiscal adequacy*, i.e. the revenue must be sufficient for the needs of public bodies ;
- (2) *elasticity*, i.e. the system of taxation must be capable of expansion as well as contraction according to the needs ;
- (3) *simplicity, certainty* (legal and economic) and *convenience* ;
- (4) *economy*, both as regards cost of collection and the repressive effects of taxation on industry ;
- (5) *benefit*, i.e. the public charges should be levied in accordance with the benefits received or the services rendered as far as is practicable without producing unfavourable results, otherwise the rule of common contribution is to be applied on the principle of ability to pay ;
- (6) *ability*, in conjunction with the principles of *universality* and *uniformity* or *equality* in taxation, i.e. all citizens of the State are to contribute toward the expenses of government as nearly as possible according to their ability, which

is not proportional to wealth or income but increases more rapidly as these increase in amount.

The taxes levied on income or property, such as the income and immovable property taxes, estate and succession duties, etc., effect a distribution of the burden of taxation with some approximation to ability to pay, while the so-called consumption taxes, such as customs and excise duties, and poll taxes reach the tax-paying capacity of people, individually possessing property or income in amounts too small to be effectively tapped by property or income taxes, but into whose hands passes a large part of the national income. Accordingly the system of taxation should be devised in such a way that these various taxes are combined in the right proportion so as to conform to the principles of justice in the distribution of the public charges. For example, the regressive character of consumption taxes is to be offset by appropriate exemptions and progressive rates in the income and inheritance taxes.

CHAPTER 17.

LABOUR PROBLEMS AND LABOUR LEGISLATION.

Labour Supply.—Until comparatively recent years the only important labour problem in South Africa was how to secure an adequate supply of labour for the various industries. The modern labour problem of civilised countries with their capitalistic industrial organisation, viz., protection of the interests of labour by means of legislation, State administration and supervision, trade unions, conciliation or arbitration boards, etc., can hardly be said to have existed in South Africa in any appreciable degree until the beginning of the 20th century. It was almost entirely the difficulty of creating a labouring class and maintaining a constant supply of labour.

Slavery.—Slavery had been introduced at the Cape as early as 1658 in view of the scarcity of labour for hire, which was again due, in the first place, to the fact that the Hottentots could not be induced to work or be subjected to regularity and discipline, and secondly, to the abundance and cheapness of land and the ease with which anyone could obtain land and become an independent farmer. There was not much likelihood of Europeans remaining in the position of farm or other labourers when they could easily become independent farmers themselves. Accordingly slaves were imported to solve the labour problem and provide the Company, the officials and the farmers with labourers and domestic servants.

Slavery was in vogue mainly in the agricultural districts in the south-west of the Cape, where all the agricultural operations were performed by slave labour under the direction and supervision of the farmer. In this way the system of agriculture in the south-western districts came to be based on slave labour and made to conform to the economics of slavery,¹ in accordance with which a system of extensive and large-scale agriculture was evolved.

The maintenance of slavery as a labour force was continued at the Cape until its abolition in 1834, when slave labour was transformed into free coloured labour. For a number of years after the emancipation of the slaves, the farmers experienced a great deal of difficulty in securing sufficient labourers, as many of the liberated slaves had migrated from the farms to the villages and towns. In due course, however, a regular and reliable supply of coloured

¹ See Part 1, Chapter 2, pp. 35-37.

labour was built up, in the urban as well as the rural areas in the south-western districts of the Cape, out of the liberated slaves and their descendants and the offspring of Hottentots, mixed breeds and half-castes.² The so-called mixed coloured still constitute the principal source of labour for the grain, wine, fruit and other farms in that part of South Africa ; and since the economics of free coloured labour closely resembles that of slave labour, agriculture is still conducted on a comparatively extensive and large-scale basis in order to render such labour economical and profitable under the prevailing conditions.

In the Western Province the mixed coloured also supply the greater proportion of unskilled labour for the urban occupations, such as domestic service, handicrafts, workshops, factories, public works and buildings, transportation, etc. ; and accordingly the urban industries have likewise been organised and adjusted in such a manner as to comply with the requirements of unskilled coloured labour. To a certain extent they have even come to compete with the Europeans in the semi-skilled and skilled occupations. In general, however, skilled labour has been performed almost exclusively by white employees and has been obtained largely by immigration from overseas, in view of the fact that until recently little provision was made for industrial education and vocational training in this country. Since the beginning of the 19th century a number of British and other skilled and semi-skilled labourers have emigrated to South Africa from time to time, either on their own accord or on the encouragement, and with the assistance, of the British and Cape Governments. For example, in 1817 about 200 Scotch mechanics and labourers were brought out to the Cape on the initiative of Moodie ; in 1820-1 a large number of handicraftsmen and factory employees were settled in the colony ; after the Great Trek efforts were made to obtain emigrants from Europe, and about 5,000 artisans and labourers emigrated from Great Britain and Ireland to the Cape ; in 1858-9 over 6,000 British emigrants were introduced to meet the great want of labourers, etc.

Indentured Indian Labour in Natal.—In Natal there was likewise a scarcity of labour for hire, which was rendered more acute when a commencement was made with the cultivation of the sugar-cane and

² In this connection it should also be noted that the Hottentot Pass Laws of Caledon and Cradock (1809 and 1812), the proposed Vagrancy Laws of Wade and d'Urban (1833 and 1834), the Masters and Servants Ordinance of 1842 and the Masters and Servants Act of 1856 aimed, amongst other things, at ensuring a regular supply of labour to the colonists, and proved to be of great assistance in maintaining a regular and reliable supply of coloured labour.

an urgent demand arose for a regular and continuous supply of agricultural labourers. There were thousands of natives (Bantus) in Natal, but these were either unwilling or unable, like the Hottentots in the Cape, to undertake regular and continuous employment ; and an European labouring class could not be firmly established in view of the abundance of cheap land and the easy access to land. Accordingly representations were made with a view to securing the importation of indentured coolie labour from India, which was sanctioned by the Natal Government in 1859. In the following year the first Indian coolies were introduced into Natal under indenture or contract to work on the sugar estates, and by 1866 about 5,600 Indians (including females) had been imported. Then, as the result mainly of financial considerations, the importation of coolie labour was stopped until 1874, when it was resumed owing to the shortage of local labour and contributed largely to the expansion of the sugar industry. It was now continued uninterruptedly until 1911 when, in retaliation to the exclusion of Asiatic settlers from the Union of South Africa, the Indian Government prohibited the emigration of indentured coolies to Natal ; and in 1913 legislation was passed by the Union Parliament to the effect that all Asiatics, with the exception of wives and children of those domiciled in the Union, are prohibited from entering the Union, so that the sugar planters have had to develop a local labour supply capable of replacing the indentured Indian coolies.

On the conclusion of their indentures, the greater number of the Indian labourers elected to remain in Natal, and are now engaged in farming, market gardening, hawking, and shopkeeping. In addition, a large number of Indians followed in the wake of their indentured countrymen and settled in Natal. The result is that at present the Asiatic population of Natal exceeds its white population, viz., 141,000 Asiatics (mainly Indians) and 136,000 Europeans according to the census returns of 1921 ; and the economic relation between the two races has given rise to considerable anxiety and trouble. By virtue of his lower standard of living the Indian is able to undersell the European and to work for a lower wage. In many cases the Asiatic has succeeded in displacing the white man. His successful competition with the Europeans in trade, agriculture and industry is becoming more and more a menace to the welfare of the white population of Natal. It is a problem which demands drastic action and can probably be solved most easily and justly by facilitating the repatriation of Indians, in accordance with the recommendations of the Asiatic Inquiry Commission of 1920, and restricting their rights of trading and owning land in the Union.

Indentured Native Farm Labour in Transvaal.—In the Transvaal considerable difficulty had also been experienced in connection with farm labour, for the same reasons as in the Cape and Natal. This difficulty was subsequently overcome, to a great extent, by the practice of indenturing native children or securing them as apprentices on the farm in one or other way. Under the Republican Government, prior to 1877, a number of indentures were granted from time to time, with the consent of parents or relatives, and when the Transvaal was annexed by Great Britain in 1877 and governed as a British colony until 1881, the British authorities likewise granted a large number of such indentures, in many cases even without the consent of parents or relatives. In this way the nucleus of a native rural labouring class in the Transvaal was established.

Native Tenantry as a Source of Farm Labour in South Africa.—In those parts of the Union where the natives or Kaffirs are located in large numbers, *i.e.*, the Transvaal, Orange Free State, Natal, Eastern and North-Eastern Districts of the Cape, and Bechuanaland, farm labour is recruited mainly from the native tenants or squatters on the land of private proprietors. In a general sense, such farm labour is regulated by an oral or written agreement between the European proprietor and the native, who is almost invariably in the position of a tenant-at-will. In return for his right to live upon the farm, cultivate a small strip of land and graze a few cattle, the native undertakes to render certain services to the owner. In the majority of cases the native works for the farmer about 2 or 3 months in the year without wage in lieu of rent. In some cases, however, the farmer requires work for a specified period at the current rate of agricultural wages, the native paying rent in consideration of his tenancy; while in others the native is permitted to occupy and cultivate land on condition of the owner receiving a half share of the produce. These agreements are generally subjected to three months' notice of termination on either side.

Thus, in a large part of South Africa the bulk of the agricultural labour is drawn from the native tenants or squatters on private land, numbering between $1\frac{3}{4}$ and 2 million. Each farmer draws his labour supply from his own native tenantry and can rarely obtain labour otherwise in view of the demands of the mines and other industries. On account of the intermittent and incompetent nature of the native labour, the supply of farm labour generally falls short of the demand, and the system of agriculture has been adapted to the employment of such untrained, unwieldy, unreliable and irresponsible labour, which has contributed in no small degree

to the prevalence of essentially unprogressive and haphazard agricultural methods.

Native Labour for the Mines.—Since 1870 the mining industry has called for a large supply of unskilled labour, which has been obtained almost entirely by the exploitation of the native labour resources in and outside the Union. The diamond mines at Kimberley were able to attract an adequate supply of native labour in view of the high wages offered as a result of the exceptional profits of the industry; and the so-called compound system was adopted in connection with the employment of natives in the diamond industry. The compound system is unique and peculiar to the diamond fields, involving the complete confinement of the native labourers in closed compounds out of working hours during their term of service. The natives are usually contracted for 3, 6 or 9 months or a year at an average wage of £1 a week, and during that period they are not allowed to leave the compound. In general, this system has proved to be highly satisfactory and has been instrumental in minimising the theft of diamonds by the native employees and securing the highest physical efficiency, as well as enabling the natives to save most of their earnings.

The gold mines, however, which necessitated rigid economy in the cost of production on account of the comparatively low average grade of the ore and were exploited on a very large scale in view of the considerable extent, uniformity and continuity of the conglomerate beds, created a demand for an unusually large supply of cheap unskilled labour, and new methods had to be adopted in order to attract the requisite supply of native labour. Accordingly, a system of recruiting was devised in accordance with which labour agents traversed the important centres of the Native population in the Cape, Transvaal, Natal, Orange Free State, Portuguese East Africa, Basutoland, etc., and secured large numbers of natives for work in the gold mines under contract for a certain period, ranging from 6 to 12 months.

This peculiarity of the native labourers, viz., that they are not accustomed or inclined or compelled by economic forces to undertake continuous labour over a long period of years but engage themselves for a period of months only and then return to their families in the native reserves and locations until the desire for more money, or possibly the attraction of urban life, induces them to enlist for another term of service, rendered it all the more difficult to maintain an adequate and continuous supply of native labour for the gold mines. However, by means of the system of recruiting the mines were able to secure a continuous supply of about 100,000

native labourers by the end of the 19th century. On the outbreak of the Anglo-Boer War in 1899, 107,000 natives were employed in the gold mines, as compared with 12,000 Europeans.

The Boer War caused an almost complete cessation of gold-mining operations on the Rand for about two years and the wholesale dispersion of the large body of native mine employees. After the War great difficulty was experienced in gathering together the requisite supply of native labour for the mines in view of the fact that, during the war, the native miners had either returned to their locations or been employed by the military authorities and earned sufficient money, in consequence of which they were particularly reluctant to sign on for service in the mines. Moreover, the reconstruction of buildings, houses, farms, roads, bridges and railways, as well as the construction of new railways and other public works on a large scale in all four Colonies, helped to bring about an acute shortage of unskilled labour all over South Africa after the Boer War.

The gold industry in particular was threatened with stagnation, as it required a very large number of native miners. Even in 1903—a year after the signing of the peace treaty—the gold mines could not procure more than 60,000 native labourers, and of these only one-third was obtained in British South Africa, the others having been recruited from Portuguese East Africa. Attempts were made to recruit native labour in various parts of the African continent, and even to obtain indentured Indian labour as was done for the sugar and tea estates; but all these attempts failed to produce an adequate supply of cheap unskilled labour for the mines, and the outcome was that steps were taken to secure the importation of indentured Chinese labour. This was sanctioned in 1903 by the Transvaal Government under Lord Milner, and in 1904 the first Chinese were introduced on the Rand. In 1905 an average of about 40,000 indentured Chinese labourers were employed in the gold mines, rising to over 50,000 in 1906. In 1907, however, the Transvaal Government was moved by political considerations to stop the importation of Chinese coolies and to undertake the gradual repatriation of those already employed on the Rand. Accordingly, the average number of Chinese employees in the gold mines declined to 21,000 in 1908 and 6,500 in 1909, the last being repatriated in the beginning of 1910.

In the meantime considerable progress had been made in connection with the recruitment of native African labour. The Witwatersrand Native Labour Association had been formed after the Boer War for the purpose of recruiting native labour on a large

scale and on an improved basis. At the same time an improvement was made in the sanitary and living accommodation provided for the native miners and in the general conditions of their employment, and the Transvaal Native Affairs Department was entrusted with the duties of supervision and inspection. Efforts were also made to reduce the high rate of mortality, especially amongst the natives from Central Africa and the warm, sub-tropical districts of the East Coast.

By 1910 the number of natives employed in the gold mines had advanced to 195,000 and had rendered possible the great expansion of the gold industry, in spite of the repatriation of 50,000 Chinese labourers. Besides the highly organised system of recruiting, several other circumstances had assisted in more than replacing the repatriated Chinese by an additional supply of native labour, viz. : completion of the work of reconstruction, depression in the diamond and other industries in 1907-8, curtailment of public works, and the rapid increase in the native population.

Employees in Gold Mines.—The following table shows the development and the fluctuations of the labour supply in connection with the gold-mining industry of South Africa :

Number of Employees in Gold Mines (1897-1924).

Year.	European.	Native.	Chinese.	Total.
1897	9,600	69,300	—	78,900
1899	12,000	107,000	—	119,000
1902	10,000	45,000	—	55,000
Average, 1906	18,000	94,000	51,000	163,000
„ 1910	25,000	195,000	305	220,000
June, 1913	24,000	208,000	—	232,000
Average, 1921	21,600	181,300	—	202,900
March, 1924	19,200	195,100	—	214,300

From the above table it is clear that the gold industry of the Rand has been built up on the basis of an unusually large proportion of native to white labour. In 1899 the ratio was 8·9 to 1, in 1913 8·6, in 1921 8·4, and in March, 1924 10·2. The great rise in the ratio since 1921 is to be attributed to the abolition of the so-called “*status quo*” agreement and the consequent displacement of European by native labour in certain occupations formerly reserved exclusively for European employees. In the beginning of 1924 the gold industry was affording no more direct employment to the European population than in 1906-8, and considerably less than during the period from 1909 to 1921.

From its early stages the organisation of the gold industry was based on cheap coloured labour, and the welfare of the industry has come to be, in a great measure, dependent upon an adequate and continuous supply of native labour. While further improvements in organisation and administration, the greater use of labour-saving devices and increased efficiency of white labour will undoubtedly render it possible, if not economical, to employ a larger number of white labourers than at present and dispense with many natives, it is quite evident that, in the majority of cases in consequence of the relatively low grade of the ore, gold mining can only be carried on profitably and on a large scale for a long period on the condition of having at least eight natives to one European employee. Consequently, it is of the utmost importance to the gold industry to have a regular supply of native labour; otherwise mining operations might be curtailed and a smaller number of European labourers employed.

Peculiarity of Native Labour.—On account of the peculiarity of native labour it has been very difficult at times to maintain an adequate supply of unskilled labour for the mines. The conditions and circumstances of Bantu tribal life in the native reserves and territories have never developed amongst them a class accustomed to, and dependent upon, continuous daily labour. This is to be attributed primarily to their limited wants, the comparative absence of incentive to labour and the easy terms on which they occupy land. In the Union about one-half of the native population is located in the native reserves and locations, where the bulk of them occupy land communally or individually and free of charge except a small tax or quitrent, and where they are able to make a living as tillers of the soil without the necessity, except in bad seasons, of earning wages. Work for wages is regarded as a mere supplement to their agricultural pursuits.

The result is that the native labourer does not work continuously but intermittently and for a period of months only, and that the requirements of the gold and other industries cannot be fully met from the native reserves and locations in the Union. Recourse has to be taken to regions outside the Union, mainly Portuguese East Africa, Basutoland, Rhodesia and Central Africa. The natives from Portuguese East Africa work on an average about 18 months before returning home, whereas the Union natives work less than 9 months on the average. The recruitment of these natives is undertaken by two recruiting organisations, viz.: the Native Recruiting Corporation which operates in the Union and the British native territories, and the Witwatersrand Native Labour Association operating in Portuguese East Africa.

Employees in All Mines.—The following table shows the fluctuations, since 1911, of the labour supply of the mining industry as a whole, due to shortage of native labour or depression in the diamond industry, etc. :

Number of Employees in Mining Industry (1911-24).

Year.	European.	Coloured.	Total.
1911	38,000	290,000	328,000
1915	29,000	250,000	279,000
1919	36,000	264,000	300,000
1921	33,000	258,000	291,000
April, 1924	31,000	272,000	303,000

The wages paid out to the European mine employees amounted to £11,214,000 in 1918, or an average of £335 13s. per annum, and to the native and other coloured miners £7,403,000, or an average of £27 12s. per annum. The white employees of the South African mines constitute one of the most highly-paid bodies of skilled and semi-skilled labour in the world. This is due partly to the relatively high cost of living in the Union, particularly in Johannesburg and Kimberley, partly to the lack of skilled labour in many trades, and partly to the demand for highly-skilled workmen capable of handling the extremely complicated, delicate and costly gold-mining machinery and treating the ore in its various stages of reduction.

At first the great bulk of the European mine employees were obtained from abroad, mainly England. Even in 1910 only 7,285, or 27·2 per cent. of the total, were men born in South Africa, as compared with 62·8 per cent. in Great Britain and 10 per cent. in other countries, whereas by 1921 13,519, or 51·5 per cent. of the total, were South African-born.

Source of Supply of Native Labour.—The following table shows the sources of the native labour employed in all industries and occupations in the proclaimed Transvaal Labour Districts :

Natives Employed in Transvaal Labour Districts (Dec. 1910 and December 1921).

Source of Supply.	1910.	1921.
Union of South Africa	168,000	152,000
Portuguese East Africa	101,000	90,000
Basutoland	11,000	24,000
Other Territories	13,000	12,000
Total ..	293,000	278,000

Unskilled Labour in Other Industries and Occupations.—In the other industries and occupations, such as the factories, workshops, railways, docks, other public works (Union, Provincial and Municipal), domestic service, etc., the unskilled labour is likewise drawn mainly from the coloured element of our population. A large number of coloured labourers (Natives, Asiatics, or mixed coloured), are in regular and continuous employment in the towns and cities and have come to be an important section of the permanent urban population of the Union. In the Cape the mixed coloured constitute the principal source of unskilled labour for the urban occupations, being supplemented by a rapidly growing number of natives; in the Transvaal and the Orange Free State it is primarily the natives, and in Natal the natives and Indians, who provide the supply of unskilled labour. In recent years, however, an increasing number of poor whites have been employed on unskilled work in the Union, Provincial and Municipal services, and even in private service.

Conclusion.—Thus, prior to Union the labour problem of South Africa was mainly that of securing an adequate and continuous supply of labour, skilled and unskilled. This has indeed been the case in all new countries, but in the other new countries the problem was solved largely by the immigration of unskilled as well as skilled labour. In South Africa, on the other hand, while skilled labour has been mainly obtained by immigration from overseas, and unskilled labour to a certain extent by the importation of slaves from Madagascar and the East Indies and indentured coolie labour from China and India, the supply of unskilled labour has during the last 50 or 60 years been secured principally by the exploitation of the native labour resources of the African continent south of the Equator.

In this respect the Union occupies an almost unique position in the world. It has all along depended upon coloured labourers for "the performance of all tasks of mere manual labour," whereas the other dominions have drawn their supply of unskilled labour, with rare exceptions, from their white population. Moreover, the native population of the Union, although numbering several millions at the present time, has never produced the requisite supply of unskilled labour for the various industries of the country; and recourse has even been taken to importations of coloured labour from other parts of Africa, and from China, India, Madagascar, etc., in order to make up the deficiency. The result of this has been that the industrial organisation of South Africa has come to be based on cheap coloured

labour and that the immigration of unskilled labour from Europe has been reduced to a minimum.

Labour Legislation.—It is only during the last thirty years, and more particularly the last fifteen years, with the rapid development of the mining and manufacturing industries, that it has been necessary to introduce legislation with a view to protecting the interests of labour. Since 1910 a large variety of labour and industrial legislation has been passed by the Union Parliament for the purpose of improving the lot of industrial workers in South Africa.

Mining Regulations.—In the Transvaal, in view of the magnitude and complexity of gold-mining operations on the Rand, a Department of Mines was gradually evolved and a series of mining regulations were introduced and elaborated from time to time. Under the Republican Government the Department of Mines was still in its initial stages and was called upon to deal not only with mining matters proper, but with various duties of general administration. The Mining Commissioners, who were the local officials responsible for the administration of the various mining centres, were also charged with the administration of justice, the collection of revenue, and the supervision of the natives, police, and public works. Moreover, in spite of the importance of the mining industry, the Department of Mines was not directly represented in the Executive Council of the South African Republic. However, notwithstanding these handicaps, the Government Mining Engineer's division was successful in establishing a fairly efficient code of mining regulations for the preservation of the health and safety of the employees and the safeguarding of mining property.

After the Boer War the Department of Mines was entirely remodelled and relieved of all its extraneous duties, and the head of the Department, who was termed the Commissioner of Mines, was included in the Executive under the Crown Colony regime and made directly responsible to the Government for the control of the mining industry. The Government Engineer's division was now organised on an improved basis and, amongst other duties, charged with the inspection and supervision of mines and other works and of all machinery, the supervision of the manufacture and use of explosives, and the administration of the various ordinances and regulations relating to the health, safety and general welfare of the mine employees. The Transvaal was divided for administrative purposes into mining districts, in each of which an Inspector of Mines was stationed, with assistants and deputies, and inspectors of machinery, who are to investigate and report upon all mining accidents and to see that the various mining regulations are carried out in their districts.

The Republican code of mining regulations was elaborated and carefully circumscribed in the Mines, Works and Machinery Regulations Ordinance of 1903. Under the circumstances and conditions prevailing in the gold-mining industry of the Rand, extraordinary precautions were demanded in connection with accidents, sanitation and ventilation. The employment of a disproportionate percentage of unskilled coloured labourers absolutely ignorant of, and indifferent to, the forces of nature harnessed by Western civilisation to industrial enterprise has rendered the risk of accident in South African mines unusually great and necessitated the enforcement of stringent regulations. The above Ordinance also prescribed strict regulations regarding sanitation and ventilation. Provision was to be made for the separate sanitary accommodation of the European, native and Chinese miners respectively, and the adoption of ventilators and dust-laying appliances as a preventive against miners' phthisis, *i.e.*, a tuberculosis disease contracted by miners as a result of inhaling large quantities of fine dust.

On the establishment of the Union in 1910, a Department of Mines was created for the whole of the Union on the basis of the former Transvaal Department and entrusted with the administration of all the laws and regulations pertaining to the mining industry. In 1911 the Mines and Works Act was passed in order to consolidate and amend the various laws in force in the Union relating to the operation of mines, works, and machinery (including machinery in factories, workshops and repairing establishments). Under this Act the supervision of all mines, works and machinery throughout the Union is placed under the Government Mining Engineer and the Inspectors of Mines, Inspectors of Machinery, and Inspectors of Explosives. The Act lays down the hours for underground labour and provides for the trial of breaches of regulations or rules and for inquiries by Inspectors of Mines into accidents. The regulations deal in detail with all the precautionary measures which have to be taken for the safety of persons employed in mines and works.

Colour Bar Regulations.—The so-called "colour bar" in the mining industry was laid down by regulations framed under the Mines and Works Act of 1911, in accordance with which certain skilled occupations are to be reserved exclusively for white employees in the mines of the Transvaal and the Orange Free State. The colour bar thus constitutes a legal barrier against the employment of native labour in specified occupations. In certain semi-skilled occupations, however, such as drill-sharpening, waste-packing, pipe and tracklaying, rough timbering, whitewashing, etc., natives were employed in some mines and Europeans in others. This gave rise to

a good deal of discontent amongst the European employees, and in 1916 the South African Mine Workers' Union entered into negotiations with the Chamber of Mines in connection with the employment of natives on semi-skilled work. The final outcome of these negotiations was the conclusion of the so-called "*status quo* agreement" in 1918, in accordance with which the mines agreed to maintain "the *status quo* as existing on each mine with regard to the relative scope of employment of Europeans and coloured employees," *i.e.* that no occupations which were then held by white men should be given to natives, and *vice versa*.

In December, 1921, however, in consequence of the decline in the gold premium and the critical position of the low-grade mines, the Chamber of Mines proposed, besides an alteration in the system of underground contracts and a rearrangement of underground work, the modification of the *status quo* agreement; and in January, 1922, owing to a further fall in the price of gold, more drastic proposals were made. These proposals were rejected by the S.A. Industrial Federation, and the ultimate result was a general strike in March of that year and the abolition of the *status quo* agreement, which was approved of by the Mining Industry Commission of 1922. The colour bar regulations, on the other hand, are still in force and represent a statutory restriction on the employment of native labour for the purpose of protecting the position of white labour in the mining industry.

Regulation of Native Labour.—The Native Labour Regulation Act of 1911 consolidated and amplified the laws in force in regard to the recruiting and employment of native labour, and provided for the payment of compensation to native labourers in the case of accident. The administration of the Act was entrusted, as under the former Transvaal regulations, to a Director of Native Labour, who is to exercise control and protection over native labourers, more particularly in the proclaimed Labour Districts where large numbers of natives are employed in mining, manufacturing or other operations. Government inspectors have also been appointed to inquire into native grievances and settle disputes, to visit the compounds, to inspect the conditions under which natives are accommodated and see that the special regulations in regard to housing, feeding and the provision of hospital accommodation are carried into effect, and to put forward their claims for compensation for injuries sustained or for disability due to phthisis or tuberculosis.

As a result of the improved supervision, inspection and regulation, in conjunction with the improvements in the prevention and treatment of pneumonia and other diseases amongst natives, the rate of

mortality from disease amongst the native labourers in the Transvaal Labour Districts declined from 16·48 per 1,000 in 1915 to 12·42 in 1921, and in the case of accident from 3·11 to 2·29.

Miners' Phthisis.—In 1911 legislation was introduced for the first time in South Africa with a view to creating a fund for the payment of compensation to miners who had contracted miners' phthisis or to the dependents of those who had died in consequence thereof. The fund consisted of grants appropriated by Parliament and of a sum, not less than such grants, levied by a Board constituted under the Act from the owners of mines where the dust produced by mining operations was of such a nature as to cause miners' phthisis. In 1912 a more comprehensive Act was passed, making further provision for those who were suffering from the disease and creating a Miners' Phthisis Insurance Fund, in addition to the Compensation Fund. The latter fund was maintained by contributions from the Union Government and the mines, and the former by a contribution of $7\frac{1}{2}$ per cent. on underground wages, 5 per cent. being levied from the employers and $2\frac{1}{2}$ per cent. from the employees. Various amendments were made in 1914, 1916, 1917 and 1918 for the purpose of increasing the amount of the benefits granted to miners and dependents, removing certain disabilities, constituting the Miners' Phthisis Board on a more permanent basis and empowering the Board, besides the consideration of claims and the award of compensation payments, to settle miners who had contracted phthisis on small agricultural holdings on specified terms and conditions and to grant financial assistance to those who are carrying on business or farming on their own or to those industrial enterprises which undertake to employ such miners or their dependents.

In 1918 a special Commission was appointed to consider the whole problem. As the result of the Commission's inquiries a comprehensive Act was passed in 1919 which consolidated and amended the previous legislation relating to miners' phthisis. The Miners' Insurance Fund was merged into the Compensation Fund, which was now considerably amplified. The new Act, unlike the previous laws, imposed on the mines practically the sole liability for the maintenance of the fund ; and the Board is to levy from the employers every three months the amount likely to be required during that period for the purposes of the fund. This amount is to be assessed in the following manner :

- (1) 45 per cent. of the amount is to be levied from the mines in proportion to the earnings of their employees in respect of underground work.

- (2) 35 per cent. of the amount in proportion to the silicosis rate of the employer, which is based on the number of underground employees who had contracted silicosis during the preceding five years. This provision was inserted in order to penalise the mines where no or few precautionary measures are taken, and to induce mines to improve the artificial or mechanical ventilation and minimise the effects of dust.
- (3) 20 per cent. of the amount in proportion to the amount with which each employer is assessed for the normal income tax. This levy is based on the ability of the mine to contribute toward the relief of phthisis patients.

A higher and more extensive scale of benefits was also introduced in 1919, based on the earnings of the beneficiary. Three different stages of phthisis were recognised by the Act. In the anti-primary stage a lump sum is awarded to the beneficiary; in the primary stage (tuberculosis without silicosis) it is a lump sum or payment in instalments with $4\frac{1}{2}$ per cent interest; and in the secondary stage (tuberculosis with silicosis) it is a monthly payment during the rest of the miner's life. The dependents of deceased miners are also awarded monthly allowances.

During the period from 1911 to 1923 an amount of more than £6,000,000 was paid as compensation to, and in respect of, those miners who had contracted miners' phthisis or died as the result thereof. Since 1919 the annual contributions by the mines to the Compensation Fund have amounted to about £700,000. In March, 1922, there were more than 1,000 miners in receipt of allowances during life averaging about £15 per month, and an almost equal number of dependents of deceased miners in receipt of allowances averaging £7 per month.

Workmen's Compensation Act.—The Workmen's Compensation Act was passed by the Union Parliament in 1914 in order to consolidate, amend, and extend throughout the Union the legislation providing for compensation for injuries contracted by workmen in the course of their employment, or for death resulting from such injuries. In 1917 the provisions of the Act were extended so as to provide for compensation to workmen who have contracted cyanide rash, lead poisoning or mercury poisoning in the course of their employment, or to the dependents of workmen who have died as the result thereof.

Under the Act an employer is liable to pay compensation in accordance with a prescribed scale in the case of personal injury resulting in incapacity or death, caused to his employees in connection with their work and in the absence of any wilful negligence

or misconduct on their part. The first step to be taken by the injured workman is to give written notice to the employer of the accident and its consequences and to apply for compensation. Application is to be made by workmen only in the case of incapacity, as confirmed or substantiated by medical investigation and a medical certificate, or by the dependents in the case of death. The following procedure is to determine the extent of the liability, if any, of the employer and to agree as to the amount of compensation to be paid. Failing a mutual agreement, recourse may be taken to the Magistrate's Court, and an appeal from the Magistrate's decision may again be carried to the Supreme Court.

The Workmen's Compensation Act does not deprive an injured workman of the right to institute an ordinary action for damages, i.e. sue for damages under the common law, which represented the important means of redress prior to the working of the Act, but he may not sue for both compensation and damages and has only one choice. Workmen are thus insured by legislation against accident, cyanide rash, and lead or mercury poisoning, and employers may cover themselves against undue risk by taking greater precautions and resorting to insurance companies for the insurance of their employees.

Workmen's Wages Protection Act.—The Workmen's Wages Protection Act was passed in 1914 in order to make better provision for securing the payment of workmen's wages. It provides generally that wages due to a workman shall form a first charge upon money payable to a contractor by his principal, and that assignments and attachments are void as against the claims of workmen.

Regulation of Wages, Apprentices and Improvers Act.—The Regulation of Wages, Apprentices and Improvers Act of 1918 provides for the appointment of Wages Boards and the regulation of the wages of women and young persons in certain trades and occupations specified in the schedule to the Act or subsequently proclaimed by the Governor-General. The responsible Minister may appoint Wages Boards for such trades and occupations in any locality where there is sufficient evidence to show that the wages paid are inadequate, the Boards to be composed of equal numbers of employers' and employees' representatives and presided over by an independent chairman, generally the local magistrate. The Boards are empowered to fix minimum rates of wages payable to women and young persons, as well as apprentices and improvers, and the number of apprentices and improvers in proportion to the number of skilled workers who may be lawfully employed. The Inspectors of Labour are also inspectors under the Wages Act in

their respective districts, and are to see that the Boards' decisions are carried into effect and to investigate complaints.

In 1922 there were 26 Wages Boards in existence in the Union, and awards have been made in various localities under the Act.

Factories Act.—In view of the unprecedented development of factories after 1914, the need arose of special legislation pertaining to factories as in the case of mines. Accordingly a Factories Act was passed by Parliament in 1918, which provided for the appointment of a chief Inspector of Factories and a number of assistant inspectors with full authority to inspect any factory in their respective industrial districts. Provision was made for a variety of regulations relating to sanitation, ventilation, lighting, drinking water, and the general improvement of working conditions, and restrictions were introduced in regard to the hours of labour and the ages of employees. For example, no employee over 16 years of age may work for more than 50 hours a week or $9\frac{1}{2}$ hours a day or 5 hours continuously; no employee under 16 years of age may work for more than 45 hours a week or 8 hours a day or $4\frac{1}{2}$ hours continuously; children under 12 years of age may not be employed in any factory, and children between 12 and 14 years of age may only be employed when authorised by the Inspector, subject to the education law.

Number of Hours of Labour.—In 1919 the International Labour Conference at Washington, U.S.A., recommended a universal 48-hour week; and except in relatively few instances the terms of that recommendation already apply to industrial conditions in South Africa. In the gold and coal mines of the Rand and the diamond mines at Kimberley the 48-hour week is the general rule; the Railway Department has, with certain modifications, adopted the principle of the 48-hour week as applicable to employment other than that of a clerical nature; in the building, engineering and printing trades the average working week is about 45 or 46 hours, and in the other branches of the manufacturing industry it varies from 44 to 50 hours, etc.

Government Labour Department.—After the Boer War a Labour Bureau was formed at Cape Town with a view to coping with the problem of unemployment consequent upon the cessation of hostilities; and in the Transvaal a White Labour Department was created with an Employment Bureau at Johannesburg, on account of the intricate labour problems involved in the mining industry. In 1910 the Transvaal Department was converted into a Department for the Union under the Minister of Mines (now Mines and Industries), and, besides those at Cape Town and

Johannesburg, Labour Bureaux or Exchanges were also established at Pretoria and Durban, and subsequently at Kimberley, Bloemfontein, Port Elizabeth and East London. Subsidiary employment offices have also been instituted at Pietermaritzburg, Krugersdorp, and several other towns. In this way the Government assists in the distribution of labour by means of employment offices.

The Union White Labour Department, which was really a section or sub-department of the Department of Mines and Industries, dealt with problems of employment and unemployment in general, including apprenticeship and the training and employment of juveniles, and was charged with the administration of the laws relating to industrial disputes and conciliation and the regulation of wages. It also recruited labour for, and supervised the welfare of, the afforestation settlements. In July, 1924, an independent Department of Labour was instituted and placed under a Minister of Labour, who is now engaged in developing and extending the activities of the new Department.

Industrial Conciliation.—Under the Transvaal Industrial Disputes Prevention Act of 1909, provision was made for machinery to facilitate conciliation and co-operation between employers and employees in the form of Joint Boards of Reference. After a number of years this conciliation machinery came to be more frequently applied in the case of industrial disputes in the Transvaal. Boards of Reference were instituted from time to time in various industries and prevented the development of many grievances into strikes. The establishment of Wages Boards relative to women and young persons has also facilitated the adjustment of economic grievances by the method of discussion and negotiation.

After 1916 the number of industrial disputes in the Union rose rapidly, owing largely to the constant rise in the cost of living. From 10 in 1916 the number rose to 22 in 1917, 47 in 1919, and 66 in 1920. In 1920 the principle of voluntary arbitration was applied in the case of several important disputes, e.g., in connection with the bank employees throughout the Union, the employees of the Johannesburg Municipality, and the building operatives on the Rand. Then came the great industrial upheaval on the Rand in the beginning of 1922 which clearly showed the need of more effective conciliation machinery. In accordance with the recommendations of the Mining Industry Commission of that year, provision was made for the establishment of standing Conciliation Boards in respect of European employees of the Transvaal gold and coal mines, consisting of an equal number of representatives of employers and employees and having a clearly defined code of

procedure. This scheme of conciliation machinery has been elaborated and also rendered applicable, under the Industrial Conciliation Act of 1924, to other industries and occupations in the Union (except the public service and agricultural pursuits).

Juveniles Act.—The Juveniles Act of 1921 provides for the establishment of boards to deal with the employment, training, welfare and supervision of juveniles. The Minister of Mines and Industries may appoint a Juvenile Affairs Board for any area in the Union, the members to be representative of both employers and employees and to include persons of special knowledge or experience in educational matters and social conditions. Prior to the Act a number of voluntary juvenile advisory boards had been in existence since 1915 for the purpose of developing or co-ordinating the work of preparing and placing juveniles in suitable employment. These boards performed a great deal of useful pioneer work and devoted considerable attention to the apprenticeship problem, emphasising the educational character of apprenticeship contracts. After a number of years the demands of these advisory boards for increased powers and statutory recognition were met by the Juveniles Act of 1921.

Apprenticeship Act.—The Apprenticeship Act of 1922 provides for the appointment of special apprenticeship committees and the extension of the system of apprenticeship in such trades and occupations as are designated by the Minister on the advice of apprenticeship committees. The Minister is empowered, on the advice of committees, to fix the periods of apprenticeship, the number of apprentices to be employed, and the rates of wages payable. The need had long been felt of a system of apprenticeship, having the force and sanction of law, under which juveniles could undergo courses of practical training along definite lines and learn to become skilled industrial workers.

Rents Act.—In 1920, in view of the excessively high rents prevailing in the urban centres of the Union, the Rents Act was passed in order to provide for the establishment of Rent Boards to receive and investigate complaints by tenants, with power to order the landlords to reduce the rent and prevent them from evicting tenants unless damage has been caused or unless the premises are reasonably required by the landlords for their own personal occupation or for the purpose of a re-building scheme.

Housing Act.—In 1920, in pursuance of the Housing Committee's recommendations, the Housing Act was also passed, empowering any local authority to borrow money from the Union Government

for the purpose of enabling it to construct, or lend money for the construction of, approved dwellings or building schemes. A Central Housing Board was appointed as an advisory body, and between 1920 and 1922 the Board approved of a number of municipal housing schemes and housing loan applications involving an amount of £1,295,000.

Trade Unionism.—It is only in comparatively recent years that the development of the trade union movement has made any considerable progress in South Africa. The earliest example of a trade union was the Amalgamated Society of Carpenters and Joiners (now known as the Amalgamated Society of Woodworkers), which was established in 1881. This was followed by the Iron Moulders' Society in 1896 and the South African Typographical Union and the South African Engine Drivers' and Firemen's Association in 1898. After the Boer War and until 1911, organised workers on the Rand were represented by the Witwatersrand Trades and Labour Council. In that year the Transvaal Federation of Trades was constituted and assumed to a large extent the functions of the Council, which eventually ceased to exist; and after the industrial disturbances on the Rand in 1913 and 1914 the Federation of Trades became the South African Industrial Federation. In 1915 the S.A.I.F. was fully recognised by the Transvaal Chamber of Mines.

The tendency of later years has been towards the creation of national organisations and the affiliation of various associations of workers with large labour combinations. Several federations of employees' associations existed at the end of 1922, such as the South African Industrial Federation, the Kimberley and District Trade and Labour Council, the Cape Federation of Labour, the South African Council of Organised Workers, and the Grand Council of State Service Organisations.

In 1922 trade unionism received a severe setback as a result of the industrial disputes and disturbances which took place on the Rand in the beginning of that year. The Chamber of Mines withdrew its recognition of the S.A. Industrial Federation and modified the conditions under which it would recognise individual trade unions in the mining industry. Under the revised policy of the Chamber recognition was given to the South African Rockbreakers' Association, which is a section of the S.A.I.F.

In general it may be said that the trade union movement in South Africa is now passing through a period of transition and reconstruction. The membership of trade unions and other associations of employees has grown from 3,836 in 1900 to 11,941 in 1914, 77,819 in 1918, 108,242 in 1921 and 81,861 in 1922.

CHAPTER 18.

EVOLUTION OF THE POOR-WHITE PROBLEM,¹ AND POOR RELIEF.

The Problem.—The so-called *poor whites* of South Africa, who are defined in the report of the Transvaal Indigency Commission of 1906-8 as those Europeans who, though able-bodied, are not competent to do skilled or semi-skilled work and unable to obtain employment in rough manual labour in competition with the coloured, originated only after the discovery of the precious minerals. At the time of the discovery of diamonds and gold, the poor-white problem was practically unknown. Prior to that notable event South Africa had indeed been a comparatively poor community, with a low standard of living in the interior, but it was one of independent farmers. There was virtually no absolute poverty in the country, except perhaps as the result of idleness, sickness, accident or vice, but not unemployment or unemployableness.

The discovery and exploitation of diamonds and gold brought about a sudden revolution in the economic life of South Africa. The modern facilities of transportation and communication were rapidly developed, and the interior was brought into contact with the coast and so with the outer world. The result was the infusion of new ideas and methods which soon spread throughout the country. Up to that time there had been a very gradual development, and in many parts the conditions closely approximated those of a static society, the conditions in the early seventies being very much the same as in the 18th century. The economic organisation of South Africa rested almost entirely on a rural basis, and the rural population, representing the great bulk of the total population, had all along been accustomed to very gradual and slight changes, in consequence of which many could not adapt themselves readily to the new ideas and methods. The advent of the mining industry brought about an agricultural revolution, the ultimate outcome of which was poverty to a large number of rural inhabitants.

The rise of poverty in the rural districts did not take place immediately. It was only after the banking crisis of 1890 that the creation of poor whites by economic forces—an economic phenomenon of dimensions peculiar to South Africa—began to make head-

¹ In connection with this subject the author derived a great deal of assistance from Professor Macmillan's monograph entitled, "South African Agrarian Problem and its Historical Development."

way, and even then in small numbers only. Some of those who were deprived of their land remained in the rural areas, but were now reduced to a position of economic dependence on some or other landlord and became "bywoners," while the others drifted to the towns and cities where many could not obtain adequate employment in the face of coloured competition in all urban occupations.

With regard to those who remained in possession of their land, some immediately adapted their methods to the changed conditions and took advantage of the golden opportunity, offered by the mining industry, of widening the scope of their farming operations, acquiring increased purchasing power, and raising their standard of living, while others found their margin of subsistence being narrowed from time to time by increased competition and lower prices of farm produce. These were in the doubtful zone and had come to the precipice, as it were, by the end of the nineties. A social or economic convulsion was all that was necessary to push them over the precipice into the abyss of poverty. The Boer War furnished the convulsion, and many were plunged into ruin and destitution.

After the Boer War poverty amongst the white inhabitants began to increase alarmingly and to attract public attention. In 1906 it was investigated by a Select Committee of the Cape Parliament, when the term "poor white" was used for the first time. In 1908 the Transvaal Indigency Commission submitted a valuable report on the causes and conditions underlying the increase of poverty in South Africa, more particularly in the Transvaal. In 1913 the matter was again subjected to investigation by a Select Committee of the Union Parliament on European Employment and Labour Conditions. This Committee reported that the drift of Europeans on the borders of pauperism from the rural areas to the towns and cities had increased in volume, and that the alluvial diamond diggings had proved to be an additional source of impoverishment. Moreover, the annual reports of the Union Department of Mines and Industries constantly referred to the continued growth of pauperism as the result, amongst other things, of the increased competition of natives and other coloured in semi-skilled occupations.

In 1917 the first official estimate of the number of poor whites in South Africa was made and announced, at the Cradock Congress of the Dutch Reformed Church, by the Minister of Agriculture. According to this estimate there were, at the time, 39,000 Europeans in dire or absolute poverty and 67,500 in somewhat less than absolute poverty, *i.e.* 106,500 altogether. In 1920 the problem of unemployment, accentuated by abnormal post-war conditions, became so acute that a Commission was appointed to investigate the whole subject of unemployment and unemployableness, the

latter being one of the root causes of permanent poverty amongst Europeans in South Africa. This Commission estimated the number of poor whites to have been approximately 120,000 in 1921, *i.e.* 8 per cent. of the total white population of the Union. And recently, statements have frequently been made in public to the effect that the number has since that time swollen to 140,000 or 150,000, in consequence of the depression in agriculture, industry and trade and the reduction of the number of European employees in the gold mines since the strike of 1922.

Causes of Poor-White Problem.—The poor-white problem is fundamentally a rural problem. The great bulk of the poor whites are Dutch-speaking and of rural origin, due primarily to the peculiarities and incongruities of our rural organisation, which are again the result of historical development. The peculiarities of the rural organisation have undoubtedly been accentuated by the lack of a suitable system of rural education and training and the harmful effects of numerous natural obstacles and disabilities. In recent years, however, the poor-white problem has also become largely an urban problem in view of the growing industrialism and the drift from the rural areas to the towns and cities. In this way the rural and urban aspects of the poor-white problem have become intertwined, and the problem itself has been considerably enlarged and complicated by the competition between white and coloured in the unskilled and semi-skilled occupations in urban industries and the lack of adequate industrial education and vocational training.

Thus, the fundamental causes of the poor-white problem in South Africa may be summarised in the following manner :—

- (1) Peculiarities of the rural population and rural organisation ;
- (2) natural obstacles and disabilities ;
- (3) lack of a suitable system of rural education and industrial training ; and
- (4) competition between white and coloured.

These causes are very intimately connected, and there has been a constant interplay of all four factors. They represent weak links in the chain which were only put to the real test by the new economic conditions called into being by the mining industry, and were considerably intensified by such violent disturbances as the Boer War, trade depressions, industrial upheavals on the Rand, etc.

Historical Background of Rural Organisation.—The peculiarities of our rural organisation may be traced back to the economic conditions at the Cape in the 18th century. In the economic environment of the 18th century the foundation of our rural popula-

tion and organisation was laid, and the impressions made on the farming community were fairly permanent. Those economic conditions were wholly unfavourable to development, as illustrated hereunder:—

(a) Numerous restrictions were imposed by the Dutch East India Company on trade and industry, the result of which was that production was held in check and stagnation ensued due to the fact that the restrictions on foreign trade deprived the colonists of an outlet for their surplus produce, and consequently of purchasing power abroad, and that local consumption was kept within narrow limits by the restrictions on internal trade and industry. The absence of mining and manufacturing industries meant the absence of a wide local market for agricultural and pastoral produce.

(b) The lack of transportation facilities at the Cape, as in all countries and at all times, was a serious obstacle to economic development and isolated the colonists in the interior from the outer world.

(c) The system of loan tenure, under which large areas of land (viz., 3,000 morgen) were leased to the colonists for a year at a time in consideration of a certain rent, led to the dispersion of the stock farmers in the interior. It encouraged "trekking" owing to the relative insecurity of the tenure and the ease with which new land could be obtained. The colonists penetrated deeper into the interior, where they were scattered far apart from each other, without any roads, markets, schools, churches, or any of the conveniences of life.

(d) The scarcity of capital, in conjunction with an abundance of cheap land and the use of slave labour, rendered it more economical to spread the available capital and labour over a large area of land. In general the farmers were induced by the prevailing circumstances to economise with capital and labour and not with land, in other words, to practise ultra-extensive agriculture and stock farming, which, however, has now become uneconomical since land has come to be relatively expensive and capital and labour can be more readily obtained.

The result of this state of affairs was that farms tended to approximate self-sufficing economic units, producing almost as many kinds of commodities as needed and buying as little as possible in view of the limited purchasing power consequent upon the lack of adequate markets for surplus produce. In this way many of the farmers came to practise subsistence farming and to produce for domestic consumption merely. In the interior they lived an isolated pastoral existence, while in the Western Province primitive agricultural conditions prevailed, due to the restraints on production and,

consequently, a low standard of living, backwardness, stagnation, etc.

Under such economic conditions the original stock of our farming population was settled on the land. In the course of time they adapted themselves to the peculiar environment, and as a result of this process of adaptation over more than a century such characteristics as individualism, independence, self-reliance, conservatism, self-satisfaction, lack of ambition and zeal, etc., became firmly entrenched in the farmers of the Cape Colony by the end of the 18th century.

The economic conditions of the 18th century were carried over into the 19th century and, with the exception of certain improvements in trade and transportation, prevailed in more or less the same form until the middle of the 19th century. Up to that time progress had been extremely slow, and South Africa was still a relatively poor agricultural and pastoral community. The mischief had indeed been caused by the Dutch East India Company in the first instance, but it was continued in a modified form by the Imperial Government, whose colonial policy was still largely based on mercantilistic principles, viz., that the colonists were to exist primarily for the benefit of the Mother Country. The Imperial Government ruled the Cape, more or less absolutely, in its own interests, and protected its trade with the Cape in various ways, until 1854 when Parliamentary institutions were granted to the Cape; and it was only in 1872 that Responsible Government was instituted in that Colony, and in 1893 in Natal. The Transvaal and the Orange Free State, having been founded and populated by emigrants from the Cape, had started with ideas and methods evolved in the unfavourable economic environment of the Cape prior to the Great Trek, so that the same characteristics, ways and means of doing things, rural organisation, etc., were diffused all over South Africa, with the exception of the Eastern Province of the Cape and Natal, where British settlers were located in large numbers.

During the period from 1856 to 1870 a good deal of progress was made in agriculture, wool-growing, trade, transportation, etc. In comparison with former periods the rate of progress was rapid, but it was not of a revolutionary nature. Such progress would have gradually enabled the farmer to adapt himself to the changing conditions as they would have changed relatively slowly and not violently. By 1870, then, the economic conditions and the characteristics of the rural population and organisation of South Africa, especially in the interior, were still almost identical with those prevailing at the end of the 18th century, having been perpetuated

by commercial isolation and the lack of adequate education facilities.

The rise of the mining industry broke the commercial isolation and brought about a revolution in the economic life of South Africa. Two industrial centres were created in the heart of the interior in a short time ; a large amount of capital was imported from abroad to develop the gold and diamond industries ; the export of diamonds and gold afforded a largely increased purchasing power abroad and enabled the country to purchase modern implements, machines, and other producers' goods as well as consumers' goods ; a larger local market for farm produce was called into being ; the modern facilities of trade, transportation and communication were instituted on a larger scale ; in general, the economic development of the country was considerably accelerated by the presence of a new and important industry and the rise of subsidiary industries.

The mining industry brought wealth and prosperity to those farmers who could adapt themselves to the new situation and take advantage of the enhanced market opportunities. For a number of years also, while the railways were being constructed for the purpose of linking up Kimberley and Johannesburg with the coast, many farmers and farmers' sons earned large sums of money by transport-riding, *i.e.* transporting passengers and goods from the railway termini in the Cape and Natal to those two industrial centres. On the completion of the railway connections, however, these transport-riders were deprived of their profitable employment, and increased competition lowered the prices of agricultural and pastoral produce.

Some farmers were not able to adapt themselves to the new conditions immediately or completely even in the long run, but at any rate sufficient to weather the storm and maintain a comfortable existence on their land ; while others could not adapt themselves and succumbed in the struggle. All the weaker producers who had formerly enjoyed a great deal of natural protection against those of other parts, on account of the absence of railways, were now subjected to the competition of others stronger and better though more remotely situated, in view of the fact that the modern facilities of economic progress diminish time and distance, break down barriers, etc.

Unsuitable Rural Education.—The lack of suitable education facilities in the rural areas was a factor which contributed, in no small degree, towards perpetuating those peculiarities of the rural population and organisation. One of the most important functions performed by education is to render people capable of adapting

themselves to ever-changing conditions, and as the system of rural education was in a highly deplorable state throughout the 19th century, the rural population was not given an adequate opportunity of procuring the equipment necessary to enable them to assume their proper rôle in an advanced community. Improvements have certainly been made during the past twenty years, but there is still a serious lack of many of the essentials of an appropriate rural education. The requirements of the rural population and rural life have not been taken into due consideration.

The result was the survival of the old habits and customs and the old ideas and methods, whereas the economic conditions of the country were fundamentally changed after 1870. The effects of this were rendered all the more severe by the fact that suitable land was no longer easily obtainable in areas large enough to provide farms for all the sons of a farmer. Moreover, economic development had enhanced the price of land and made it still more difficult for farmers' sons to acquire new land. Yet, in view of the lack of education facilities as also, to a certain extent, of the inclination to learn consequent upon a long period of stagnation of the rural environment, many were not capable or desirous of earning their living in any other way than by farming.

Hence the sub-division of farms into smaller and smaller areas, which was further assisted by the Roman-Dutch law of inheritance in accordance with which the property was to be equally divided amongst the children on intestacy, or, in the case of a will, the children could claim their "legitimate" portions. While there was still an abundance of cheap and suitable land available for settlement, the children usually moved onwards and occupied new land, but when most of the land that could easily be adapted to agricultural or pastoral pursuits had been taken up and was rising rapidly in price, the law became operative and promoted the sub-division of farms. And in view of the fact that the old unscientific and haphazard methods of agriculture and stock farming were still in vogue amongst large sections of the farming community, due to the absence of proper education, the sub-divided farms became too small to enable many farmers to earn a fair margin of subsistence. In other words, the perpetuation of primitive agricultural methods necessitated the perpetuation of large farms; so that in those cases where the farms came to be diminished in size by the force of circumstances, while the methods were not appreciably improved, if at all, the process of elimination of the inadaptable was set in motion.

The peculiarities of the rural population (*viz.*: that they are individualistic, independent, conservative self-satisfied, slow to

change and absorb new ideas, slow to co-operate and organise, etc.), and of the rural organisation (viz. : ultra-extensive farming, unscientific, unprogressive and haphazard methods, the organisation of the agricultural and pastoral industry on the basis of the economics of coloured labour, uneconomic system of organising factors of production, lack of united effort and organised action, insecurity of tenure in the case of "bywoners," unsound and diverse system of agricultural credit, etc.) are to be gradually eliminated or rendered less vulnerable by better and more suitable education facilities, better provisions for the diffusion of the knowledge of the modern scientific methods and the results of experiments amongst the farming community, greater permanency and security of tenure for the "bywoner," a sounder and more uniform system of agricultural credit, etc.

The system of rural education is to be adapted to the peculiar requirements of the rural population and rural life, and not based on that prevailing in the towns and cities, as is the case at present. The aim of the primary school in the rural areas must be to render the pupils, as far as possible, rurally inclined, devoting a good deal of attention to the study of nature and natural life in all its aspects. This must be supplemented, in the case of those intending to go into farming occupations as farmers, farm managers, or skilled agricultural labourers, by attendance for about 3 years at a continuation school, preferably in the form of a school farm where they receive expert instruction and practical demonstrations as well as practical experience in connection with all the functions pertaining to the various types of farming which can be profitably undertaken in that district. In this way the future farmers will acquire a first-hand knowledge of the modern scientific methods of farming and will be capable of utilising the results of experiments conducted by the Agricultural Schools and Experimental Farms or the Agricultural Faculties of the Universities. Moreover, those who do not have the capital necessary to enable them to farm on their own account from the very beginning, may seek temporary employment as expert farm managers or skilled agricultural labourers, with the object of gradually acquiring the small capital which would make it possible for them to take advantage of a Government scheme of closer land settlement.

The institution of proper education facilities for the rural population, in conjunction with a sound and uniform system of agricultural credit such as the Federal Farm Loan System in the United States of America, is of more than usual importance in South Africa in view of the fact that the existence of numerous natural obstacles and disabilities renders agriculture and stock

farming more risky and unremunerative than in almost any other country. A suitable educational equipment will enable the farmer to combat the forces of Nature more successfully, and suitable credit facilities will tide him over the difficult periods and enable him to overcome the risks of farming more effectively.

Natural Obstacles and Disabilities.—(1) *Unequal Distribution of Rainfall and Water Supply.*—In the coastal areas, especially in the south-west of the Cape Province and in Natal, the rainfall and water supply is fairly regular, but elsewhere it is most unequal in its occurrence and distribution. Droughts occur from time to time over vast areas in the interior, frequently for long periods without a break, and are sometimes even followed by floods with the resultant waterlogging of grain crops, soil erosion and denudation, etc. This unequal distribution of the rainfall, however, is not an insurmountable obstacle. The disadvantageous effects thereof can be considerably minimised by devoting more attention to the conservation of water and the provision of irrigation facilities, the growing of forage crops and the making of ensilage for the purpose of feeding live stock in periods of drought, etc.

(2) *Hailstorms*, which lead at certain times to a considerable destruction of growing crops, orchards, and small stock.

(3) *Livestock Diseases*, such as rinderpest, pleuro-pneumonia, Texas fever and East Coast fever amongst cattle; scab, heart-water, malarial catarrhal fever, tick paralysis and "full-sickness" amongst sheep; cerebro-spinal meningitis in goats; horse-sickness and biliary fever in horses; and dietetic diseases such as "gallamsiekte," bush-sickness, veld-sickness, etc.

The annual loss of live stock in the Union in consequence of disease and drought is considerable, as shown in the following table which is based on the returns of the agricultural censuses of 1917-18 and 1920-21:

Loss of Stock in Union from Disease and Drought (1917-18 and 1920-21).

Description.	1917-8.	1920-1.
Sheep	2,461,000	2,164,000
Lambs	2,066,000	1,434,000
Goats	727,000	480,000
Kids	510,000	270,000
Cattle	240,000	440,000
Horses and Mules	95,000	59,000

Since 1910 the Union Department of Agriculture has made a great deal of progress, as a result of research, experiments and

inspection, in connection with the control of stock diseases ; and the rate of progress can be accelerated if more funds are placed at the disposal of the Department and if the farmer can be rendered more progressive, more prone to adopt new methods, and adaptable to co-operation.

(4) *Insect Pests*, such as locusts, maize-stalk borer, wheat aphid, codlin moth, mediterranean fly, phylloxera, potato tuber worm, white ants, etc. The locust menace is the most serious of the insect pests and has proved to be the most difficult to overcome. Periodic visitations of locusts in countless swarms have at times wrought considerable damage to the growing crops and the pasturage in many parts of the Union. The Division of Entomology, in the Department of Agriculture, has indeed improved its organisation for the purpose of locust suppression, and legislation has even been passed in order to facilitate the wholesale destruction of locusts, but the recent locust invasion has shown that there is still much room for improved organisation and control.

These natural disabilities, especially when several of them occur together or in succession or in successive years, have been instrumental in driving many farmers from their land and swelling the ranks of the poor whites. Improved education, credit, transport and marketing facilities, as well as more effective assistance from the Department of Agriculture, will do much to prevent droughts, floods, hailstorms, stock diseases and insect pests from adding to the number of poor whites.

Competition between White and Coloured.—The competition of coloured labour in agriculture, mining, manufacturing, etc., also ranks as one of the most potent causes of permanent pauperism amongst Europeans in South Africa. Their lower standard of living and the paucity of their wants have enabled the coloured to work at a much lower wage than the Europeans. The coloured have a comparative advantage in those occupations which do not afford an opportunity to the white man to off-set his higher wage by his superiority in skill, dexterity, knowledge, ability, resourcefulness, etc. In the unskilled occupations which always afford a much wider scope for employment than the skilled, the Europeans are at a serious disadvantage in competition with the coloured ; and as the coloured rise in the scale of civilisation, their competition will be more and more severely felt in the semi-skilled occupations as well.

The result of this peculiar state of affairs in South Africa has been that the lower strata of the white population, which are found in all countries and generally drafted into the unskilled occupations,

find their normal field of employment occupied by the natives, Asiatics, and mixed coloured. In every country there is a large number of people who are not capable of undertaking other than unskilled work. The Union of South Africa is no exception to the general rule, but here the matter is complicated by the numerical preponderance and lower standard of living of the coloured population. This renders it very difficult for those Europeans who have been driven from the land by force of circumstances, and who, by reason of a lack of training, ability or opportunity, are not fit for the semi-skilled and skilled occupations, to find employment in the unskilled industrial occupations. The competition of the coloured labourer has brought the wages of unskilled labour down to a very low level, in many cases below the minimum of subsistence of the white labourer, with the result that unemployment and poverty have become permanent institutions in certain parts of the country and certain sections of the population.

The problem of the proper economic relation between the European and the coloured labourers in South Africa has not been solved as yet and demands close attention and careful study from our statesmen. It is still a matter of doubt to what extent the problem will be solved by territorial or industrial segregation, or by means of technical education and vocational training and the development of domestic industries. The latter alternative appears to be, for the immediate future at any rate, the most laudable and economical of the various methods enumerated. The development of local industries will widen the field of employment for the Europeans as well as for the coloured, and in addition the improved vocational training will fit the Europeans for those occupations where some skill is required and consequently where they have the advantage over the coloured. In view of the competition of coloured labour in unskilled occupations, suitable industrial education is of more than usual importance in South Africa, and yet it is to-day still in a very deplorable state. The few existing industrial schools are to be reorganised and improved, and the whole system of vocational training is to be extended and adapted to the requirements, not only of the urban population but also of those elements of the rural population which are continually migrating from the rural areas and seeking employment in urban industries.

In the long run, however, it seems clear that territorial or industrial segregation will have to be put into effect to a greater or less extent, as the uncontrolled competition between white and coloured is undermining the whole social and economic fabric of the Union.

Settlement of Poor Whites on Land.—While the development of local industries, in conjunction with improved industrial education, and the employment of poor-white labour on the Government railways, harbours, irrigation works, forest plantations, etc., as far as it is practicable, will undoubtedly serve to absorb a large proportion of the poor whites in the cities and towns, as well as those rural inhabitants who will continue to migrate to the urban centres even if rural conditions are rendered more favourable and attractive, there will still be a large number of poor whites in the rural villages and towns or as “bywoners”² (*i.e.*, squatters or share tenants) on the farms of others who must be dealt with in a different way, as the result of attachment to the land or traditional idleness or indifference or incompetence. Settlement on the land in one or other form, with a view to restoring them to independence and enabling them to earn their own living as far as possible, seems to be the most plausible method of dealing with such poor whites.

The better classes of poor whites, who are the victims mainly of misfortune or a conjuncture of unfavourable conditions and circumstances, may be granted probationary holdings on closer irrigation or other settlements where they can be trained and tested. If they prove to be fully satisfactory and capable of managing their own affairs successfully, the holdings are to be allotted to them as independent settlers on “licence” tenure, *i.e.*, subject to the payment of equal instalments of the principal and the interest over a period of about 30 years. The other classes of poor whites, who are the victims largely of hereditary pauperism, traditional idleness, indifference or incompetence, may probably be set on their feet most effectively and economically by means of a system of agricultural labour colonies, where they are granted the opportunity of earning a decent living under proper supervision and training, gaining the requisite experience and knowledge of

² The so-called “bywoner” has been described as a tenant who lives upon the land belonging to another without any clearly defined rights or duties. The usual arrangement is that, for a house and certain grazing rights, he either shares with the owner of the land the crops which he raises and the increase of his stock, or does a certain amount of work for the owner of the land. The essential feature of this “bywoner” system is the insecurity and indefiniteness of the tenure. It is frequently of a temporary nature only, as the owner may require the land for other purposes—*e.g.*, for one of his sons. In the absence of favourable legislation and other facilities, the “bywoner” system came into being as the only possible outlet for the increasing numbers of rural inhabitants who had no hope of starting, as they could have done in the days of cheap and plentiful land, as independent landowners. It was the natural outcome of the peculiar social and economic conditions of the country, and is one of the most important contributing causes of poverty in the rural areas.

modern farming practices, and acquiring the small capital needed to enable them to take advantage of the improved facilities to be offered in connection with closer land settlement schemes. That is, the labour colonies are to serve as a sort of training ground for those of the latter classes of poor whites who aspire to becoming applicants for holdings on closer irrigation or other settlements. This can perhaps be accomplished most successfully in the long run by the Dutch Reformed Church, with State assistance in respect of land, funds, and itinerant agricultural experts.

The Kakamas Labour Colony, along the banks of the Orange River, is a good indication of what can be done by the Church to reclaim a large number of poor whites. This colony was established by the Dutch Reformed Church in 1897 out of purely charitable motives. A large area of land was granted to the Church by the Cape Government and advances were made for the construction of canals from the Orange River for the purpose of irrigating the land of the colony. "Erven" or lots, measuring on an average 6 morgen, were allotted to indigents who were selected mainly from the "bywoner" classes, under a system of perpetual lease on the payment of an annual rent of approximately £10. In addition to the agricultural lot of about 13 acres, the erfholder has a building site and is entitled to graze 25 head of small, and 20 head of large stock on the common pasture lands round the settlement. In 1919 there were 399 erfholders in the colony, most of whom had undergone a marked improvement and were doing fairly well.

The Kakamas Labour Colony may be considered to be, in general, a successful experiment in the reclamation of poor whites and deserving of extension on an improved basis. A labour colony should be regarded primarily as a means to an end, and not an end in itself, and should aim at reclaiming poor whites, teaching them zeal and industry, educating their children industrially and otherwise, and enabling those who had made good progress and attained a certain measure of independence to become landowners through the medium of Government land settlement schemes. It should serve, as far as possible, as a temporary training ground merely, as the central process in the stage of transition from a landless poor white to an independent landowner, even if only a smallholder.

In some of those respects the Kakamas Labour Colony has indeed failed to serve its proper purpose. The erfholders have become permanent residents of the colony. Their families have increased considerably without adequate provision being made for efficient industrial training due mainly to lack of funds. The result has been that an increasing number of squatter families have come into existence, and the danger has arisen of poor whites being created there

on account of insufficient provision for the rising generation. However, in other respects a fair measure of success has attended this method of reclaiming poor whites, which is to be attributed, to no small extent, to the theocratic nature of the colony's organisation. On the basis of the experience gained in connection with the Kakamas Labour Colony, as well as the labour colony near Roos Senekel, O.F.S., the De Lagers Drift Labour Colony in the Transvaal and the Kopjes Irrigation Settlement, the establishment of agricultural labour colonies,³ under the direction of the Church and with financial and other assistance from the State, will contribute very materially towards the solution of the poor-white problem on the land.

Conclusion.—In view of the dimensions of the poor-white problem and the lack of any organised co-operation between the various agencies at work on poor relief, spending large sums of money and yet failing either to prevent or permanently remedy the evil, there is need of a central organisation, under the direction of a permanent board or commission, for the purpose of bringing about effective co-ordination of the activities of the various State Departments, the Local Governments, the Church and other agencies aiming at the relief or reclamation of the poor whites. By means of organised, united and sympathetically inclined effort a great deal more can be accomplished than under the loose, diverse and half-hearted system in vogue at the present time.

Poor Relief.—There is no clearly defined policy and no organised system of poor relief by public authorities in the Union of South Africa. No poor laws are in existence in any of the Provinces of the Union, and no systematic attempt has been made by any of the Governments (Union, Provincial or Local) to deal with the problem of poor relief as a whole. The relief of poverty, whether resulting from sickness, invalidity, old age, physical or mental defects, accident, death of bread-winner, lack of proper agricultural or industrial training, irregular employment, unemployment, unemployableness, laziness, vice, crime, etc., is undertaken in some or other form by all the public authorities and a large number and variety of private charitable organisations and institutions, without any central organisation for the purpose of supervising and controlling the work of poor relief, co-ordinating the activities of the various agencies at work, and avoiding duplication and indiscriminate relief.

³ The Unemployment Commission of 1920 also laid special emphasis on the necessity of labour colonies.

Union Government.—The Union Government provides for :—

(1) The detention and maintenance, in general, of the mentally defective and the leprous. There are eight mental asylums and six leper institutions in the Union, involving an annual expenditure by the Union Government of about £400,000 or £500,000, whereas the receipts from paying patients in the mental hospitals amount to £50,000 per annum only.

(2) The maintenance and training of destitute children in six State industrial schools, and grants to certified private institutions under the Children's Protection Act, involving an expenditure of about £100,000 per annum.

(3) The maintenance of employment offices or labour exchanges in all the important urban centres in the Union, in order to assist in the distribution of labour and minimise unemployment.

(4) The employment of a number of poor-white labourers on the railways, afforestation settlements, irrigation works, etc.

(5) The relief of distress on exceptional occasions only, such as (a) the contribution of £15,305 from revenue towards poor relief in 1913-4, (b) the appropriation of £64,563 from loan funds in 1916-7 towards the relief of distress caused by a severe drought in certain sections of the country, and (c) the provision of temporary relief works⁴ in connection with Government undertakings with a view to assisting in the relief of distress consequent upon widespread unemployment since 1920, and the granting of subsidies to Government Departments, the Railway and Harbour Administration, the Provincial Administrations and the principal municipalities for the purpose of encouraging the employment of white instead of coloured labour, the subsidies covering the difference in cost between the employment of white and coloured labour. During the years 1920-3 the Union Government spent £884,000 out of revenue for the relief of distress from unemployment.

Provincial Administrations.—The Provincial Administrations provide for :—

(1) The maintenance or subsidising of hospitals and charitable institutions. Ordinary hospitals for the sick are either entirely public hospitals (Provincial) or private hospitals receiving financial assistance from the Provincial Administrations. In the Transvaal nine hospitals are maintained by the Provincial Administration, and nine others supported by grants-in-aid, and in Natal four hospitals are directly controlled by the Province, with seven others

⁴ The number of men employed on public relief works in the Union on the 30th April, 1924, was 6,424; and the number of persons reported as being dependent on them was 18,870.

receiving financial assistance from provincial funds ; whereas in the Cape and Natal, grants-in-aid only are made to hospitals, dispensaries, or convalescent homes, the grants being calculated on the amount of the revenue derived by such institutions from patients' fees and voluntary contributions and bequests. Fees are charged in the hospitals, but not sufficient to cover expenses. Provision has been made for special low rates for the poorer classes and free wards for indigents. Moreover, in all four Provinces grants-in-aid are made to a number of private charitable organisations. These hospitals and charitable organisations now involve an annual expenditure of about £600,000 or £700,000 by the Provincial Administrations.

(2) The relief of paupers, in connection with which the Provinces now incur an expenditure of from £70,000 to £100,000 per annum.

(3) Temporary relief of distress from unemployment.

Municipalities.—To a smaller extent the municipalities also contribute towards the relief of pauperism and unemployment, either directly or in the form of grants-in-aid.

Charitable Institutions.—The charitable institutions and organisations in the Union may be divided into four groups :—

- (a) Institutions maintained by public bodies, provincial and municipal, for the accommodation of poor persons suffering from chronic infirmities ;
- (b) private institutions subsidised by the Provinces ;
- (c) institutions maintained by the Churches at their own expense ;
- (d) purely private institutions, deriving their funds from subscriptions and donations entirely.

The greater part of the relief afforded to persons in poverty and distress, as the result of sickness, invalidity, infirmity, or old age, and to pauper children, is administered by the various Church and private benevolent institutions. More than 150 charitable institutions are engaged in affording relief, protection or shelter to those who are in distress, in need of assistance, or homeless. Such institutions include homes for convalescent, aged or infirm persons, orphanages, children's homes, shelters for men and women, almshouses, rescue homes, and kindred institutions. In 1921-22 these institutions incurred a total expenditure of £397,000, toward which public bodies contributed £159,000 in grants while subscriptions, collections and donations yielded £126,000, fees from inmates £27,000, etc.

Benefit or Friendly Societies.—These include all societies, lodges, clubs and other associations established primarily for the purpose of

granting financial assistance to members or their dependents in case of incapacitation, sickness, death, unemployment, or other causes. In 1922 there were 85 benefit societies in the Union and 8,600 recipients of sick benefits. In that year these societies paid out to their members £34,000 for medical attendance and £29,000 as sick pay, and £30,000 to the dependents of members who had died during that period.

Governor-General's Fund.—The Governor-General's Fund was inaugurated in September, 1914, with the object of relieving distress caused to persons on active service during the war or to dependents resident in the Union. The fund continued in existence after the termination of hostilities, and the large sum collected, amounting in the aggregate to about £3,250,000, was gradually disbursed in aid of disabled soldiers and the widows and families of soldiers who had lost their lives in the war. The vocational training of ex-soldiers was also attended to. At the end of 1922 the balance of the fund amounted to £733,000, after disbursements to the amount of £104,000 had been made during that year. This fund will continue to be an agency of poor relief for a number of years.

"Helpmekaar" Fund.—The "Helpmekaar" Fund was instituted shortly after the Rebellion of 1914 for the purpose of meeting a large number of claims presented against the rebel commando's and relieving distress arising out of the rebellion. The amount subscribed and collected in a variety of ways soon advanced to over £150,000, which was in excess of the amount required for the original purposes. It was then decided to make this excess the nucleus of a permanent fund and to continue to collect money every year so as to enhance the revenue of the fund. Helpmekaar Societies have been organised in all four Provinces of the Union and have become permanent institutions for the relief of distress and the furtherance of the education of poor children as well as adults by means of grants or loans on favourable terms.

Administrator's (Transvaal) Distress Fund.—This fund was established in March, 1922 for the relief of distress resulting from the industrial disturbances on the Rand. Assistance in the form of food and the provision of accommodation was given to all in distress irrespective of the cause thereof. Direct relief from the fund, however, was discontinued at the end of December, 1922, when it was decided to make grants from the fund for a period of 6 months to local benevolent organisations for the relief of distress within their areas.

Conclusion.—There is need of a central organisation to supervise and control the system of poor relief as a whole, to co-ordinate

the activities of the various agencies at work (Union Government, Provincial Administrations, municipal authorities, education authorities, charitable organisations, benefit societies, etc.), to avoid indiscriminate relief and overlapping of activities; in other words, to organise poor relief on a scientific basis and carry out the fundamental principles of poor relief, as enunciated in the majority report of the English Poor Law Commission of 1909, viz., *co-operation* between public and private agencies with a view to making the most economical use of the available public and private funds, *discrimination* of treatment as regards different cases, and *restoration* of paupers to independence.

INDEX.

PAGE

Agriculture	44, 100, 105, 110, 129, 172
Apprenticeship Act ..	452
Asbestos, Production of ..	267
Asiatics	143, 147, 436
Asses	231
Auction Duties	83, 417
Bacon	233
Balance of Trade	322, 329
Banking	74, 101, 104, 110, 363
Barter Economy	70, 370, 373
" Trade with Hottentots	10, 51, 57, 66
" Trade with Kaffirs	66, 90
Basutos	100, 102
Beef Industry	215
Beer, Excise Duties on ..	413
Benefit Societies	469
Black Cattle, Tax on ..	84, 389, 419
Bluebacks	371, 373
Boer War	121
Boer War, Financing of	122, 374, 399
Brandy, Duty on ..	81, 387, 411, 418
" Production of ..	50, 198
Branch Banks	385
Bridges	101, 343
British Settlers (1820)	89, 135
Bushmen	20
" Bywoner "	171, 465
Capital, Scarcity of ..	33
Capital Stock, Tax on ..	422
Capitation Tax	83, 389, 429
Cattle Farming	51, 211
Cattle, Tax on	84, 389, 396, 419
Charitable Institutions ..	469
Chinese Labour	125, 439
Cigarettes, Excise Duty on	413
Coal Mines	263
Cole's Law (1831)	96, 155
Colonial Banking Act ..	362
Colour Bar Regulations ..	445
Coloured, Competition of	148, 435, 463
Commando Tax	389
Commercial Banks	384
" Revenue	78, 386
Commission of Inquiry (1792)	20
Copper Mines	265
Cotton	207
Credit Economy	71, 370
Currency	70, 91, 356
Customs Duties	82, 300, 387, 410
" Negotiations	118, 308
" Union	119, 126, 308
Dairy Industry	213

PAGE

Deflation	381
Delagoa Bay	116, 347
Depressions	91, 103, 110, 124, 132, 368
Diamond Discovery	107, 257
Diamond Era	108
Diamond Mines	257
Diamonds, Export Duty ..	411
" Export of	325, 333
" Production of ..	261
Discount Bank	364
District Banks	366
Docks	341
" Drift " Episode	120, 311
Droughts	221, 462
d'Urban, Sir Benjamin ..	95
Dutch East India Company,	
Formation of	3
Dutch East India Company,	
Policy of	11, 23, 40, 57, 61, 76
Eastern Province	91
Economic Reorganisation,	
Period of	127
Estate Duties	427
Excess Profits Tax	426
Exchange Rate	332, 357, 378, 383
Excise Duties	411
Expenditure	78, 387
Export Duties	300, 410
Exports	62, 321
Exports, Invisible	331
Factories Act	450
Factories, Number of ..	296
Finance	76, 386
Fishing Industry	274
Foreign Trade	101, 321
Forestry	268
Freehold Tenure	29, 152
Fruit Export	201
Fruit Growing	45, 200
General Taxes	80
Goats	224
Gold, Discovery	114, 241
" Era	113
" Exports of	325, 333
" Industry, Labour in ..	438
" Law	140, 241, 398
" Mines (Rand)	242
" Premium	252, 378
" Production of	242, 251
" Standard	379, 382
" Value of	255
Grain Elevators	181
Grapes	199
Great Trek	94
Guano Industry	280

	PAGE		PAGE
Ham	233	Lourenco Marques ..	116, 347
Harbours	337, 341	Lucerne	192
Hearth Money ..	84	Maize	175
" Helpmekaar " Fund ..	470	Maize, Export of ..	178, 326
Hides and Skins, Export of	323	Manufactures, Gross Value of	288
Horse Breeding ..	55, 228	Influence of	
Horses, Export of ..	56, 228	World War on ..	290
Hospitals	468	Manufactures, Net Value of	291
Hottentots	10, 87, 94, 134	Manufacturing Industry ..	282
House Tax	84, 389, 422	Markets	39
Hut Tax	394	Mercantilism	85, 282, 301
Immigration .. 14, 16, 135, 144, 165		Milner, Lord Alfred ..	121, 123, 126
Imperial Banks	367	Mineral Production	239
" Preference ..	300, 302, 313	" Resources, Import-	
Imports	63, 321	tance of ..	108
Imports, Invisible	330	Miners' Phthisis	447
Income Tax	390, 422	Mines, Profits Tax on ..	399, 424
Indian Labour	435	Mining Industry	238
Industrial Centres	295	" Regulations	444
" Conciliation	451	" Revenue	240, 398, 402
" Development	287	Mohair	227, 325
" Schools	464, 468	Money	70, 91, 356
" Structure	132	" Economy	71, 370
Inflation		Monopolies	68
110, 114, 125, 131, 358, 368, 376		Monopoly Contracts	68
Insect Pests	463	" Leases	82, 387, 416
Iron and Steel Industry ..	293	Mules	231
Iron Mines	267	Mutton Sheep	223
Juveniles Act	452	Native Farm Labour	437
Kaffir Corn	182	" Labour, for Mines ..	438
Kaffirs	20, 137	" " Peculiarity	
Kaffir Wars	95, 100, 103, 137	of	441
Kakamas Labour Colony ..	466	" " Regulation	
Kruger, Paul	118, 120	of	446
Labour Colonies	465	" " Sources of ..	442
" Department	450	Natives, Competition of	148, 464
" in Gold Mines ..	250, 438	" Land Tenure of ..	166
" Legislation	444	" Number of	147
" on Farms	434	" Segregation	149, 464
" Problems	434	" Taxes on	430
Labour, Scarcity of	33, 434	Natural Obstacles and	
Labour Supply	434	Disabilities	462
Land Legislation	155	Oats	191
" Revenue	161, 386, 391, 394, 418	" Opstal "	81, 151
" Settlement	158, 162, 465	Ostriches	234
" Tax	418	Ostrich Feathers, Export of	
" Tenure	29, 88, 144, 150, 171	236, 325	
Licences	416	Paper Money	73, 356, 371, 377
Loan Bank	74, 363	Pass Fees	431
" Freehold	33	Pastoral Industry	105, 111, 173
" Leases	19	Perpetual Quitrent Tenure ..	153
" Places	32, 151	Physical Forces, Influence of	41
" Tenure	29, 150	Pigs	232
Local Banks	366	Political Federation	118
" Taxes	83, 389	" Forces, Influence of	41
Locusts	463	" Reorganisation	97
Lombard Bank	74, 363	Poll Tax	83, 389, 429
		Poor Relief	467
		Poor-White Problem	454

	PAGE
Poor Whites, Number of ..	455
„ Settlement on Land ..	465
Population 13, 16, 25, 105, 134, 143	
Portuguese East Africa ..	118
Post Office	352
Poultry	236
Produce, Tax on ..	391, 419
Property, Tax on ..	391, 418
Protection of Industries ..	297, 304, 317
Provincial Finance	408
„ Taxes	427
Public Debt .. 393, 395, 400, 405	
„ Finance	386
Quitrent Tenure	32, 152
Railway Finance 392, 395, 400, 406	
Railways 104, 109, 115, 128, 344	
Raisins	200
Rand Gold Mines 114, 116, 124, 242	
Reconstruction	123
Rents	79, 386
Repatriation	123
Reserve Bank	380
Revenue 78, 109, 125, 132, 386	
Rhodes, Cecil	117, 120, 259
Rhodesia	117, 350
Rixdollar	70, 324, 356
Roads	38, 101, 342
Roman-Dutch Law of Inheritance ..	460
Rural Education	459
Rural Organisation, Historical Background of ..	456
Rural Population and Organisation, Peculiarities of ..	458, 460
Salt Industry	281
Sealing Industry	279
Sheep and Black Cattle, Tax on ..	84, 389, 419
Sheep Farming	54, 219
Shipping	337
Silver, Production of	267
Sinking Fund 393, 395, 400, 405	
Slave Labour, Economics of ..	36, 434
Slavery, as a Labour Force ..	35, 434
„ Economic Effects of ..	15
„ Introduction of	15
Slaves, Emancipation of	92
„ Number of	134
Social Forces, Influence of ..	42
Somerset, Lord Charles	89
Special Taxes	83, 389
Stamp Duties	83, 415
Stock Diseases	462
Street Tax	389

	PAGE
Succession Duties	427
Sugar	203
Tariff Legislation	104, 300
Taxation	80, 387, 410
Telegraphs	354
Telephones	354
Territorial Expansion 97, 105, 112	
Textile Industry	293
Timber Forests	269
Timber, Imports of	274
„ Production of	273
Tin Mines	266
Tithe	81, 387, 418
Tobacco	205
Tobacco, Excise Duties on ..	413
Trade, Balance of	322, 329
Trade Balance Sheet	331
Trade, Foreign	57, 105, 109, 125, 132, 321
„ Influence of Foreign Ships on ..	60, 337
„ Monopoly of	63, 321
„ Restrictions on	18, 57
Trade Unionism	453
Trading Profits	78
Transfer Duty	80, 414
Transportation	37, 101, 104, 109, 115, 337
Transport—Riding	344, 459
Unemployment	454, 468
Union of South Africa, Establishment of ..	127
Van der Stel, Adriaan	18
„ Simon	14
Van Riebeeck	7, 9, 26
Vegetables	45, 194
Viticulture	49, 194
Voortrekkers	96, 139
Wages Boards	449
War Debt	403
Wattle Bark	274
„ Plantations	273
Whale Oil, Export of	279, 323
Whaling Industry	278
Wheat	47, 184
Wine, Duty on	81, 387, 418
„ Export of	50, 62, 196, 322
„ Production of	51, 195
Wool, Export of	223, 325
Wool Industry	219
Woollen Factories	293
Workmen's Compensation Act ..	448
World War, Influence of ..	129
Zululand	117, 162
Zulus	98

The Finances of the Union of South Africa

BY

M. H. de KOCK, M.A., Ph.D.

"Parliamentary novices, as well as business men and students of economics, have long felt the need of some convenient handbook which would enable them to get a grip of the main facts of our system of national finance. . . . This handbook contains a mass of carefully sifted and classified information such as is not to be found in any existing work of reference."—*Cape Argus*, Cape Town.

"Dr. de Kock's work shows that he has gone to original sources for his information, and that the general scheme and method of his analysis is at once thorough, simple and informative. . . . We may commend his volume to all who take an interest in Public Finance as a most valuable guide to the financial system of the Union."—*Cape Times*, Cape Town.

"We wish to welcome the book as the first serious work of its kind on the finances of the Union. The recognised principles of the science of finance are indicated everywhere. . . . The book will contribute much towards creating an active interest in affairs which intimately concern every citizen."—*Die Burger*, Cape Town.

"Those who have occasion to refer to the book will have nothing but praise for the accuracy of the facts and figures, for the patience which was required for their extraction from the various publications, Governmental and otherwise, and the manner of their presentation."—*Pretoria News*.

"Dr. de Kock's book gives evidence of much careful investigation and study, and . . . will be welcomed by a considerable section as a valuable contribution to one's knowledge of the financial side of the governing of South Africa."—*Rand Daily Mail*, Johannesburg.

"It is much to be hoped that this mass of information, so carefully digested and so clearly arranged, will attract the attention of publicists, and lead to a more intelligent criticism of public economy and finance in the newspapers and in Parliament."—*F. W. Hirst* in the *Cape Argus*.

Government Ownership in South Africa

BY

M. H. de KOCK, M.A., Ph.D.

"In this volume he discusses the whole question of Government ownership, not from an argumentative or Socialist point of view, but more in the style of a historical survey of the whole of Government activities . . . and the book will therefore be of infinite value to the political student"—*Natal Mercury*, Durban.

"A very clear, unbiassed review of the position in the Union in respect of Government ownership at the present time. . . ."—*East London Daily Dispatch*.

"A reasonably successful effort has been made to give clearly and succinctly the financial results of the activities of the Union Government."—*Pretoria News*.

"In this work Dr. de Kock furnishes a large amount of information which he has collated from a variety of sources not easily accessible to the public."—*Cape Argus*.

"In this volume Dr. de Kock explains the organisation and working, as well as the results, of the different State enterprises in the Union"—*Rand Daily Mail*.

JUTA & CO. LTD., CAPE TOWN.

